09-23-11 LETTING ITEM 062

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DUPAGE	201	1
	ILLINOIS	CONTRACT NO. 63568		

INDEX OF SHEETS & STANDARDS

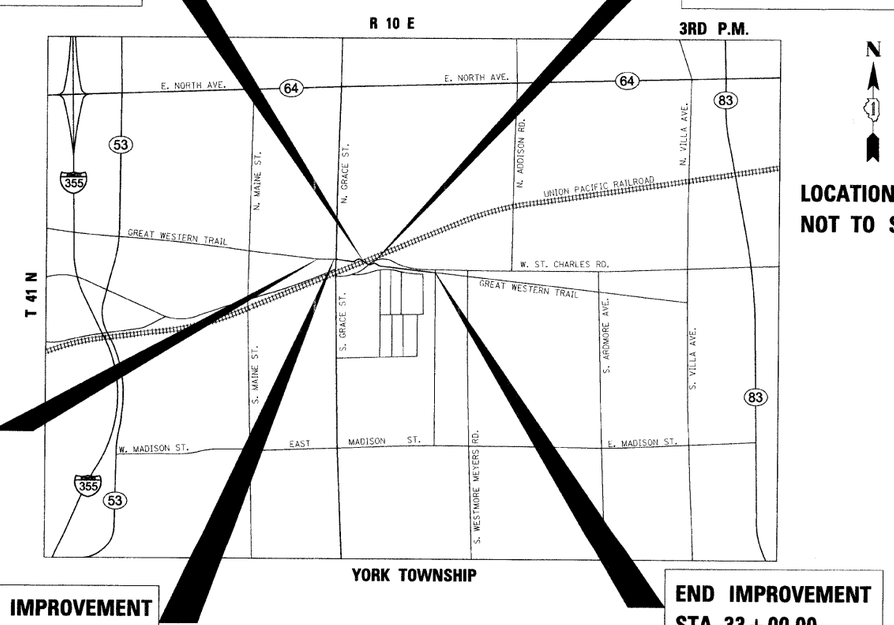
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

GREAT WESTERN TRAIL
GRACE STREET TO ST. CHARLES ROAD
BIKE TRAIL AND BRIDGES
SECTION 06-00151-00-BR
PROJECT M-9003 (548)
VILLAGE OF LOMBARD
DUPAGE COUNTY
C-91-289-10

BRIDGE IMPROVEMENT
STA. 21 + 36.64
SN 022-3122

BRIDGE IMPROVEMENT
STA. 24 + 82.21
SN 022-3121



BEGIN IMPROVEMENT
STA. 10 + 00.00

BRIDGE IMPROVEMENT
STA. 14 + 05.05
SN 022-3120

END IMPROVEMENT
STA. 33 + 00.00

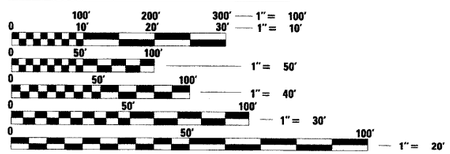
N

LOCATION MAP
NOT TO SCALE

LOCATION OF SECTION INDICATED THUS: –■–

DESIGN DESIGNATION = OFF SYSTEM
DESIGN SPEED = 20 MPH
ADT = 100 VPD

PROJECT LOCATED IN THE VILLAGE OF LOMBARD



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CONTRACT NO. 63568

GROSS LENGTH OF PROJECT = 2,300.00 FT (0.436 MILES)
NET LENGTH OF PROJECT = 2,300.00 FT (0.436 MILES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED _____ 20 ____
VILLAGE OF LOMBARD

PASSED _____ 20 ____
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW _____ 20 ____
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONSULTING ENGINEERS SCIENTISTS & LAND SURVEYORS
Bollinger, Lach & Associates, Inc.
333 PIERCE ROAD SUITE 200 ITASCA, IL 60143
P:(630) 438 6400 F:(630) 438 6444 www.bollingerlach.com
ITASCA * CHICAGO * ALGONQUIN * LAKE GENEVA * SOUTH BEND * INDIANAPOLIS

DATE _____

CRAIG A. LUKOWICZ
ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-041788
MY LICENSE EXPIRES ON 11-30-11.

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. 847-705-4406 SCHAUMBURG, IL

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2007 (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS," ADOPTED JANUARY 1, 2011; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS", SIXTH EDITION; THE DETAILS IN THE PLANS; AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

UTILITIES

1. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY OWNERS IF ANY UTILITY IMPROVEMENTS ARE REQUIRED BY THE VILLAGE OF LOMBARD WITHIN THE DURATION OF THE CONTRACT.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL EXISTING AND PROPOSED UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.

3. THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE, AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE INCURRED. THIS WORK SHALL BE ARRANGED BY THE UTILITY COMPANY AND SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION LR 105.

STAKING

1. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

2. ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED. CURB AND GUTTER ELEVATIONS SHOWN AT POINTS OF CURVE, ETC., ARE TOP OF CURB, UNLESS OTHERWISE NOTED.

3. STRUCTURE OFFSET LOCATIONS GIVEN ON THE DETAILED PLANS ARE TO THE FOLLOWING POINTS: A) FOR STRUCTURES FALLING IN THE CURB LINE-TO THE EDGE OF PAVEMENT; B) FOR ALL OTHER STRUCTURES-TO THE CENTER OF THE STRUCTURE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING ALL R.O.W. AND EASEMENTS IN ADDITION TO ALL OTHER REQUIREMENTS SPECIFIED IN RECURRING SPECIAL PROVISIONS "CONSTRUCTION LAYOUT STAKES."

SEWERS AND WATER MAINS

1. ANY LOOSE MATERIAL, DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES WHICH OBSTRUCTS THE NATURAL FLOW OF WATER SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

2. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN IN AN OPERATING CONDITION TEMPORARY OUTLETS AND CONNECTIONS FOR ALL DRAINS, SEWERS, AND CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES WHICH HAVE THE CAPACITY TO RECEIVE AND DISCHARGE THE STORM WATER FLOW RATES NORMALLY ACCEPTED AND RELEASED BY EXISTING DRAINAGE FACILITIES. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

3. ALL FRAMES WITH CLOSED LIDS TO BE FURNISHED AS PART OF THIS CONTRACT FOR ANY MANHOLE, CATCH BASIN, INLET, DRY WELL VALVE VAULT, OR METER VAULT SHALL HAVE CAST INTO THE LID ONE OF THE FOLLOWING WORDS: FOR STORM SEWER STRUCTURES- "STORM". FOR SANITARY SEWER STRUCTURES--"SANITARY". FOR WATER SYSTEM STRUCTURES--"WATER". ANY ADDITIONAL COST FOR THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE FRAME AND CLOSED LID PROVIDED.

4. FRAME ELEVATIONS GIVEN ON THE PLANS ARE ONLY TO ASSIST THE CONTRACTOR IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION AND CROSS SLOPE OF THE AREA IN WHICH THEY ARE LOCATED.

BACKFILL

1. ALL TRENCH BACKFILL QUANTITIES FOR STORM AND SANITARY SEWER AND WATER MAIN HAVE BEEN COMPUTED AND SHALL BE PAID FOR IN ACCORDANCE WITH THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, BUREAU OF CONSTRUCTION TRENCH BACKFILL TABLE.

LIGHTING

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LIGHTING CONTRACTOR AND THE MSE WALL SUPPLIER TO VERIFY THE DEPTH OF LIGHT POLES, CONDUIT, AND UNIT DUCT AVOIDS CONFLICTS WITH SOIL REINFORCEMENT FOR THE MECHANICALLY STABILIZED EARTH RETAINING WALL.

SIGNS

1. ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY ARTICLE 107.25 AND THE FOLLOWING REQUIREMENTS:

   A. SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK NECESSITATES IT.

   B. EVERY SIGN REMOVED MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO TRAFFIC FOR WHICH IT IS INTENDED. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND CLEAN FOR THE DURATION OF THE TEMPORARY SETTING.

   C. ALL SIGNS SHALL BE RE-ERECTED IN PERMANENT LOCATIONS AS THE ROADWAY IS COMPLETED. HORIZONTAL LOCATION FROM THE EDGE OF PAVEMENT SHALL BE AS DESIGNATED BY THE ENGINEER.

   D. ALL UNUSED SIGNS WILL BE PLACED AT A PRE-DETERMINED LOCATION FOR PICK UP BY THE VILLAGE OF LOMBARD.

   E. LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY OR PERMANENT SIGN LOCATIONS TO MAINTAIN PROPER SIGN ELEVATIONS AND SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

MISCELLANEOUS

1. THE CONTRACTOR SHALL MAINTAIN EXISTING SIDE STREET ACCESS, EXISTING DRIVEWAY ACCESS, AND PEDESTRIAN ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT, UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER.

2. SAWING OF REMOVAL ITEMS AS NOTED ON THE PLANS, SPECIFIED IN THE STANDARD SPECIFICATIONS, OR AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

3. THE THICKNESSES OF HOT MIX ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASES ON WHICH THE HOT MIX ASPHALT MIXTURES ARE TO BE PLACED.

4. PROTECTIVE COAT SHALL BE APPLIED TO ALL GUTTER FLAGS, FACE AND TOP OF CURB, P.C.C. SIDEWALK, P.C.C. DRIVEWAY PAVEMENT, AND AS DIRECTED BY THE ENGINEER.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING FRESH CONCRETE FROM DAMAGE AND VANDALISM. ANY DAMAGED OR VANDALIZED CONCRETE SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

6. WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

7. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

8. TYPE "A" CURB RAMPS SHALL BE INSTALLED AT ALL INTERSECTING STREETS AND DRIVEWAYS PER CURRENT IDOT STANDARDS AT LOCATIONS WHERE SIDEWALK IS SHOWN ON PLAN.

9. THE CONTRACTOR SHALL PREPARE THE SUBGRADE IN ACCORDANCE WITH ARTICLE 301.03 OF THE STANDARD SPECIFICATIONS PRIOR TO THE REMOVAL OF ANY UNSTABLE MATERIALS,

10. ALL DISTURBED AREAS WITHIN THE PROJECT THAT ARE NOT OTHERWISE SURFACED SHALL BE CLEARED, LAYERED WITH TOPSOIL, AND SEEDED OR SODDED AS SHOWN IN THE PLANS.

11. USE A FERTILIZER WITH AN ANALYSIS OF 1:1 RATIO AT THE FOLLOWING RATE PER ACRE:

	SEEDING	SODDING
NITROGEN FERTILIZER NUTRIENT	90 LBS.	60 LBS.
PHOSPHORUS FERTILIZER NUTRIENT	90 LBS.	60 LBS.
POTASSIUM FERTILIZER NUTRIENT	90 LBS.	60 LBS.

12. SUPPLEMENTAL WATERING SHALL BE PERFORMED WHEN DIRECTED BY THE ENGINEER AT A RATE OF 10 GAL PER SQ. YD.

13. THE CONTRACTOR SHALL DISPOSE OF ALL SIDEWALK, CURB AND GUTTER, PAVEMENT, AND ALL OTHER EXCAVATED MATERIAL NOT FOR SALVAGE AT HIS EXPENSE. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE EACH DAY.

14. FOR RAILROAD NOTES, REFER TO GREAT WESTERN TRAIL OVER UNION PACIFIC RAILROAD STRUCTURE PLANS.

15. DESIGN LOADING FOR PROPOSED STRUCTURES WITHIN PROJECT LIMITS IS H20, SEE STRUCUTURE PLANS. CONTRACTOR SHALL NOT EXCEED THIS STRUCTURE LOADING AT ANY TIME DURING CONSTRUCTION. THE COST OF ALL LABOR, EQUIPMENT, AND MATERIALS TO COMPLY WITH THIS REQUIREMENT WILL NOT BE PAID DIRECTLY, BUT THE COST SHALL BE CONSIDERED INCLUDED IN THE PROPOSED ITEMS OF WORK IN THE CONTRACT.

16. TRAIL SIGNING AND BOLLARD WILL BE INSTALLED BY COUNTY.

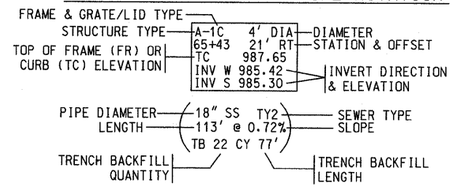
17. THE CONTRACTOR IS RESPONSIBLE FOR ANY TESTING AND COORDINATION RELATED TO THE CLEAN CONSTRUCTION DEMOLITION DEBRIS RULES AS ESTABLISHED BY THE STATE OF ILLINOIS PRIOR TO REMOVAL OF UNSUITABLE MATERIAL FROM THE PROJECT SITE.

18. A WAITING PERIOD OF TWO MONTHS IS REQUIRED BETWEEN THE COMPLETION OF EMBANKMENT CONSTRUCTION AND THE BEGINNING OF PAVING OPERATIONS FROM STATION 13+40 TO STATION 14+70 (APPROXIMATE LIMITS OF GRS-IBS AT GRACE STREET). AT ALL OTHER LOCATIONS ALONG THE PROJECT A WAITING PERIOD OF 5 MONTHS WILL BE REQUIRED BETWEEN THE COMPLETION OF EMBANKMENT CONSTRUCTION AND PAVING OPERATIONS. THE CONTRACTOR SHALL STAGE THIS WORK ACCORDINGLY AND ALL WORK NECESSARY TO ADHERE TO THIS CONTRACT REQUIREMENT IS INCLUDED IN THE ITEMS NECESSARY FOR EMBANKMENT CONSTRUCTION AND PLACEMENT OF SUB-BASE. ANY CONTRACTOR REMOBILIZATION WILL NOT BE GROUNDS FOR ADDITIONAL PAYMENT.

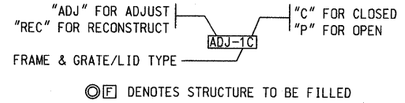
HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
424001-05	CURB RAMPS FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
515001-03	NAME PLATES FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
602001-02	CATCH BASIN TYPE A
602301-03	INLET TYPE A
602306-03	INLET TYPE B
604001-03	FRAME AND LIDS TYPE 1
604006-04	FRAME AND GRATE TYPE 3
604036-02	GRATE TYPE 8
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606006-02	OUTLET FOR CONCRETE CURB AND GUTTER TYPE B-6.24 (B-15.60)
606201-02	TYPE B GUTTER
664001-02	CHAIN LINK FENCE
701101-02	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-04	URBAN LANE CLOSURE, 2L, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701901-01	TRAFFIC CONTROL DEVICES
814001-02	HANDHOLES

SEWER STRUCTURE AND PIPE NOTATION

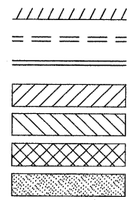


STRUCTURE ADJUSTMENT/RECONSTRUCTION/REMOVAL NOTATION



SUPPLEMENTAL LEGEND

SEE IDOT HIGHWAY STANDARDS FOR ADDITIONAL INFORMATION



UNION PACIFIC AND IDOT RAILROAD CROSSINGS GENERAL NOTES:

SEE GENERAL NOTES ON UPRR STRUCTURAL PLAN FOR RESTRICTIONS AND PAYMENT CONDITIONS ASSOCIATED WITH WORK PERFORMED IN THE UNION PACIFIC RIGHT OF WAY.

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-gennote.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = daly | PLOT SCALE = 50.0000 ' / IN. | PLOT DATE = 7/22/2011

DESIGNED - BD | DRAWN - DC | CHECKED - BD | DATE -

REVISED - | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GENERAL NOTES

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	2
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	GREAT WESTERN TRAIL								
				75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL
				BIKE PATH	BIKE PATH	BRIDGE, NEW CONSTRUCTION SN 022-3120	BRIDGE, NEW CONSTRUCTION SN 022-3121	BRIDGE, NEW CONSTRUCTION SN 022-3121	BRIDGE, NEW CONSTRUCTION SN 022-3122	RETAINING WALL SN 022-3123	LANDSCAPING	LIGHTING
				0028	0028	0008	0008	0008	0008	0040	0031	0021
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	426	284	142							
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	203	135	68							
20100500	TREE REMOVAL, ACRES	ACRE	3.0	2.0	1.0							
20101100	TREE TRUNK PROTECTION	EACH	29	19	10							
20200100	EARTH EXCAVATION	CU YD	2,980	1,490	1,490							
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	3,660	1,830	1,830							
20400100	BORROW EXCAVATION	CU YD	6,900	3450	3450							
20400800	FURNISHED EXCAVATION	CU YD	10,505	5,253	5,252							
20800150	TRENCH BACKFILL	CU YD	65	43	22							
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	11,350		5,675						5,675	
25000200	SEEDING, CLASS 2	ACRE	3.0		1.0						2.0	
25000312	SEEDING, CLASS 4A	ACRE	2.5		0.83						1.67	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	270		90						180	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	270		90						180	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	270		90						180	
25100630	EROSION CONTROL BLANKET	SQ YD	13,750		4,583						9,167	
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	12,000		4,000						8,000	
25200100	SODDING	SQ YD	435		145						290	
25200200	SUPPLEMENTAL WATERING	UNIT	4.5		1.5						3	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	800.0		266.7						533.3	
28000400	PERIMETER EROSION BARRIER	FOOT	7,611	5,100	2,511							
28000510	INLET FILTERS	EACH	17	11	6							
28100101	STONE RIPRAP, CLASS A1	SQ YD	163	109	54							
28200200	FILTER FABRIC	SQ YD	163	109	54							
31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	1,906	1,277	629							
40200900	AGGREGATE SURFACE COURSE, TYPE B	CU YD	93	93								
40600200	BITUMINOUS MATERIALS, PRIME COAT	TON	3.8	1.9	1.9							
40600300	AGGREGATE (PRIME COAT)	TON	3.8	1.9	1.9							
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	301	202	99							
42001300	PROTECTIVE COAT	SQ YD	250	167	83							
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	22		22							
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	1591.0	1,060.7	530.3							
42400800	DETECTABLE WARNINGS	SQ FT	20.0	13.3	6.7							

- SPECIALTY ITEMS

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-S00.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = cesario	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/26/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	3
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	GREAT WESTERN TRAIL							
				75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL
				BIKE PATH	BIKE PATH	BRIDGE, NEW CONSTRUCTION SN 022-3120	BRIDGE, NEW CONSTRUCTION SN 022-3121	BRIDGE, NEW CONSTRUCTION SN 022-3121	BRIDGE, NEW CONSTRUCTION SN 022-3122	RETAINING WALL SN 022-3123	LANDSCAPING	LIGHTING
				0028	0028	0008	0008	0008	0008	0040	0031	0021
44000100	PAVEMENT REMOVAL	SQ YD	377	252.6	124.4							
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	90	60	30							
44000600	SIDEWALK REMOVAL	SQ FT	780	520	260							
48101500	AGGREGATE SHOULDERS, TYPE B, 6"	SQ YD	660	400	260							
50157300	PROTECTIVE SHIELD	SQ YD	172						172			
50200100	STRUCTURE EXCAVATION	CU YD	3,470			510		754	1945	261		
50300225	CONCRETE STRUCTURES	CU YD	132.0			21.0	50.1		60.9			
50300255	CONCRETE SUPERSTRUCTURE	CU YD	304.7			59.3	88.3		157.1			
50300300	PROTECTIVE COAT	SQ YD	743			154	226		363			
50400745	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE BULB T-BEAMS, 72"	FOOT	415.5						415.5			
50401005	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 48"	FOOT	782.0			389.0	393.0					
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	78,910			16,040	23,560		39,310			
50800515	BAR SPLICERS	EACH	76				34		42			
* 50901730	BRIDGE FENCE RAILING	FOOT	283.9						283.9			
* 50901750	PARAPET RAILING	FOOT	667.1			197	280.8		189.3			
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1,400				462		938			
51202305	DRIVING PILES	FOOT	1,400				462		938			
51203610	TEST PILE STEEL HP12X63	EACH	4.0				2		2			
51204650	PILES SHOES	EACH	24				8		16			
51500100	NAME PLATES	EACH	6			2	2		2			
52000110	PREFORMED JOINT STRIP SEAL	FOOT	40.0						40.0			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	3						3			
52100400	STEEL BEARING ASSEMBLY	EACH	3						3			
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	7	4	3							
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	349	233	116							
55100500	STORM SEWER REMOVAL 12"	FOOT	33	24.6	8.4							
58700300	CONCRETE SEALER	SQ FT	580						580			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	30				30					
60200105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1	1								
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	4	3	1							
60240220	INLETS, TYPE B, TYPE 3 FRAME AND GRATE	EACH	5	3	2							
60240301	INLETS, TYPE B, TYPE 8 GRATE	EACH	2	1	1							
60500050	REMOVING CATCH BASINS	EACH	1	1								

* SPECIALTY ITEMS

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-500.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = cesario
PLOT SCALE = 20.0000 ' / IN.
PLOT DATE = 7/26/2011

DESIGNED - BD
DRAWN - DC
CHECKED - BD
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	4
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	GREAT WESTERN TRAIL								
					75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL
							BRIDGE,	BRIDGE,	BRIDGE,	BRIDGE,			
					BIKE PATH	BIKE PATH	NEW CONSTRUCTION	NEW CONSTRUCTION	NEW CONSTRUCTION	NEW CONSTRUCTION	RETAINING WALL	LANDSCAPING	LIGHTING
							SN 022-3120	SN 022-3121	SN 022-3121	SN 022-3122	SN 022-3123		
					0028	0028	0008	0008	0008	0008	0040	0031	0021
	60602800	CONCRETE GUTTER, TYPE B	FOOT	1024	686	338							
	60603800	COMBINATION CONCRETE CURB AND GUTTER,TYPE B-6.12	FOOT	90	60	30							
	60605000	COMBINATION CONCRETE CURB AND GUTTER,TYPE B-6.24	FOOT	158	105	53							
	63301000	REMOVE AND REERECT STEEL PLATE BEAM GUARD RAIL	FOOT	42	28	14							
	66400205	CHAIN LINK FENCE, 5'	FOOT	1,500	1,000	500							
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	6.7	3.3							
	67100100	MOBILIZATION	L SUM	1.0	0.50	0.50							
	X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1.0	0.67	0.33							
	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	4	2							
*	80400100	ELECTRIC SERVICE INSTALLATION	EACH	1.0		0.33							0.67
•	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1.0		0.33							0.67
•	81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	59.0		19.7							39.3
•	81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	12.0		4							8
•	81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	50		17							33
•	81019000	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL	FOOT	52		18							34
•	81200240	CONDUIT EMBEDDED IN STRUCTURE, 2 1/2" DIA. PVC	FOOT	884		292							592
•	81304700	JUNCTION BOX EMBEDDED IN STRUCTURE 18" X 18" X 6"	EACH	13		5							8
•	81400700	HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	4.0		2.0							2.0
•	81603040	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE),1" DIA. POLYETHYLENE	FOOT	3,221		1,075							2,146
•	81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	996		330							666
•	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1,992		675							1,317
•	81702150	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	177.0		59							118
•	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	2,071		1,050							1,021
	X0321865	ANTI-GRAFFITI PROTECTION SYSTEM	SQ FT	27,158			6,830		6,043	12,591	1,694		
	X0322936	REMOVE EXISTING FLARED END SECTION	EACH	2	1	1							
	X0323697	RUSTIC RAIL FENCE REMOVAL	FOOT	72	48	24							
	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	51				51					
	X5121800	PERMANENT STEEL SHEET PILING	SQ FT	8,435				3,980		4,455			
	X6640200	TEMPORARY CHAIN LINK FENCE	FOOT	2,099		2,099							
	X6640300	CHAIN LINK FENCE REMOVAL	FOOT	141	95	46							

• SPECIALTY ITEMS

FILE NAME = W:\755-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-SOD.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = cesario	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/26/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	5
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	GREAT WESTERN TRAIL							
				75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% GCPF	75% FED 25% LOCAL	75% FED 25% LOCAL
				BIKE PATH	BIKE PATH	BRIDGE, NEW CONSTRUCTION SN 022-3120	BRIDGE, NEW CONSTRUCTION SN 022-3121	BRIDGE, NEW CONSTRUCTION SN 022-3121	BRIDGE, NEW CONSTRUCTION SN 022-3122	RETAINING WALL SN 022-3123	LANDSCAPING	LIGHTING
				0028	0028	0008	0008	0008	0008	0040	0031	0021
* X8250500	LIGHTING UNIT COMPLETE, SPECIAL	EACH	27		10							17
* X8250505	LIGHTING CONTROLLER, SPECIAL	EACH	1.0		0.33							0.67
Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	1755	1175	580							
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0	0.5	0.5							
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	168	112	56							
Z0034210	MECHANICALLY STABILIZED EARTH RETAINING WALL	SQ FT	17,348					5,051	10,136	2,161		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0		1.0							
Z0056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	26.0	17.3	8.7							
Z0076600	TRAINEES, CONSTRUCTION CODE TYPE 0042	HOUR	1,500	1,000	500							
XX008575	AGGREGATE COLUMN GROUND IMPROVEMENT LOCATION 1	L SUM	1			1						
XX008576	AGGREGATE COLUMN GROUND IMPROVEMENT LOCATION 2	L SUM	1			1						
XX008577	AGGREGATE COLUMN GROUND IMPROVEMENT LOCATION 3	L SUM	1						1			
XX008003	FORM LINER TEXTURED SURFACE, SPECIAL	SQ FT	19,429			870		5,257	11,608	1,694		
XX008403	CONCRETE SUPERSTRUCTURE, SPECIAL	CU YD	92.7			17.0		22.5	53.2			
Z0077900	WOOD POST AND RAIL FENCE	FOOT	96	64	32							
XX006490	LETTERING	L SUM	1.0			0.5		0.5				
XX008582	PRECAST MODULAR BLOCKS	SQ FT	4,440			4,440						
XX008578	GEOSYNTHETIC REINFORCED SOIL	SQ FT	4,440			4,440						
XX008579	REINFORCED SOIL FOUNDATION	FOOT	327			327						
XX008580	GRS BACKFILL MATERIAL	CU YD	1,093			1,093						

* SPECIALTY ITEMS

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-smt-SOQ.dgn

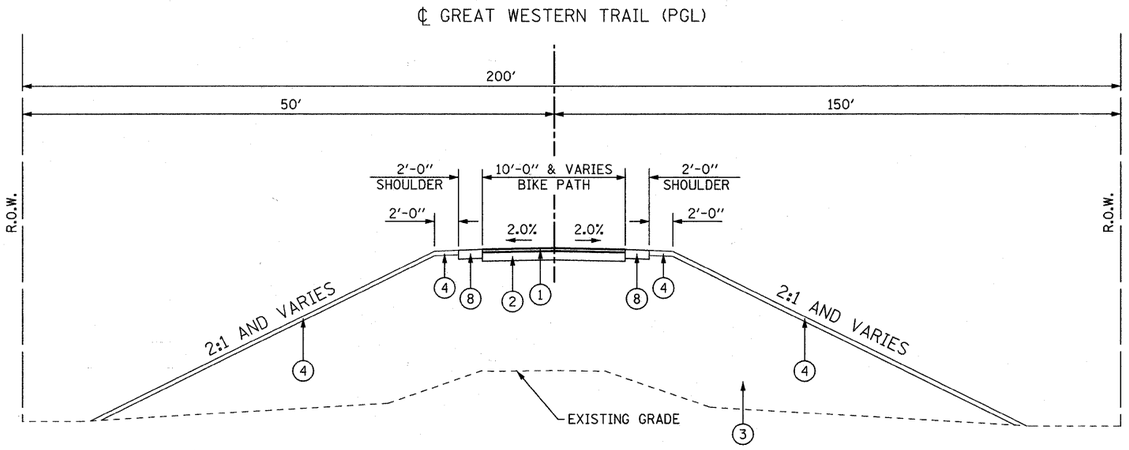
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/26/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
SUMMARY OF QUANTITIES

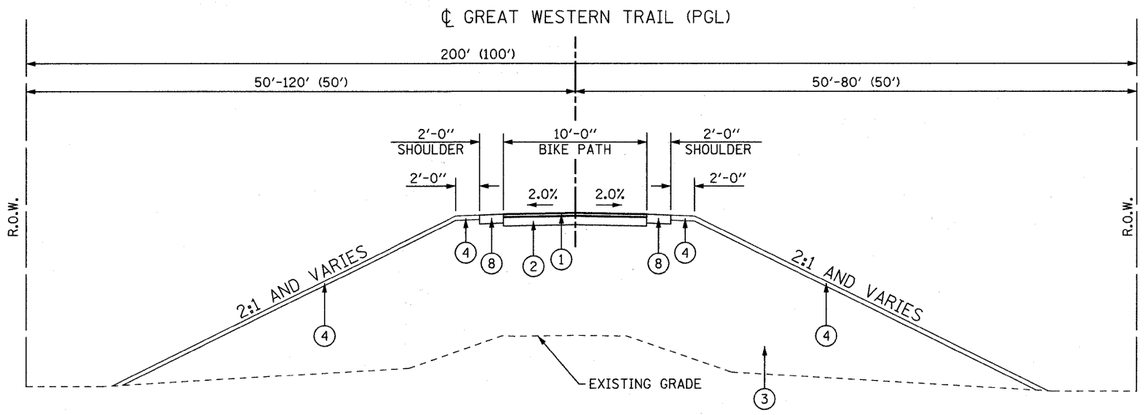
SCALE: NONE | SHEET NO. OF 182 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	6
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		



PROPOSED TYPICAL SECTION A

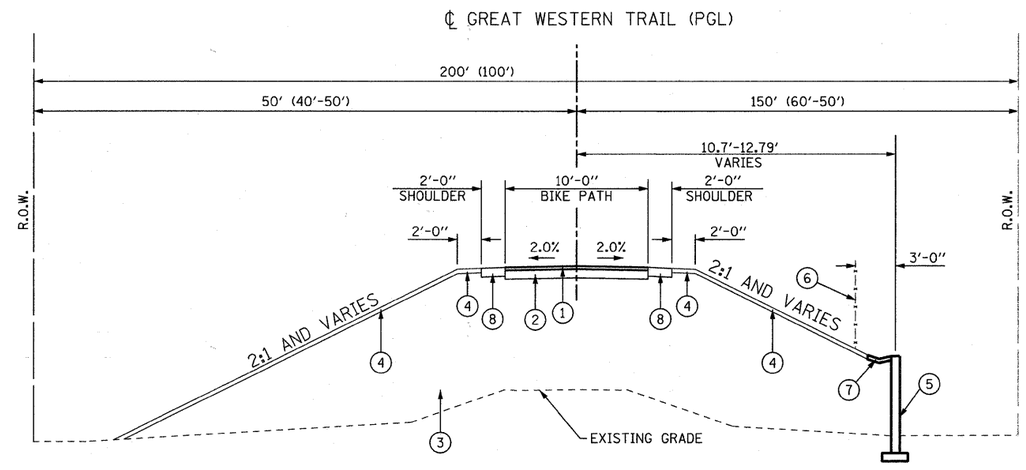
STA. 10+00.00 TO STA. 11+00.00, GREAT WESTERN TRAIL



PROPOSED TYPICAL SECTION B

(BRIDGE OMISSION STA. 13+55.80 TO STA. 14+54.30)

STA. 11+00.00 TO STA. 12+75.00, GREAT WESTERN TRAIL
STA. 15+50.00 TO STA. 19+26.90, GREAT WESTERN TRAIL
STA. 26+50.00 TO STA. 28+00.00, GREAT WESTERN TRAIL
STA. 50+00.00 TO STA. 52+72.64, GREAT WESTERN TRAIL



PROPOSED TYPICAL SECTION C

MSE OR GRS WALL ON SOUTH SIDE

STA. 12+75.00 TO STA. 13+55.80, GREAT WESTERN TRAIL
STA. 14+54.30 TO STA. 15+50.00, GREAT WESTERN TRAIL
STA. 25+53.39 TO STA. 26+50.00, GREAT WESTERN TRAIL

NOTE: FOR LIGHT POLE LOCATIONS REFER TO TYPICAL SECTIONS ON SHEET 50 OF 201, "LIGHTING DETAILS".

LEGEND:

(1) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 3"
(2) PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 6"
(3) EARTH EMBANKMENT
(4) PROPOSED SEEDING CLASS 4 AND EROSION BLANKET
(5) MSE OR GRS RETAINING WALL, VARIABLE HEIGHT
(6) CHAIN LINK FENCE, 5'
(7) TYPE B GUTTER
(8) PROPOSED AGGREGATE SHOULDERS, TYPE B 6"

HMA MIXTURE REQUIREMENTS CHART		
MIXTURE TYPE	AIR VOIDS	THICKNESS
1. BIKEPATH HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 mm)	4% @ 50 GYR.	3" (IN 2 LIFTS)
2. BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 mm)	4% @ 50 GYR.	3"-15" (4" MAX LIFTS)

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HOT MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD/IN

NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-typical1.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

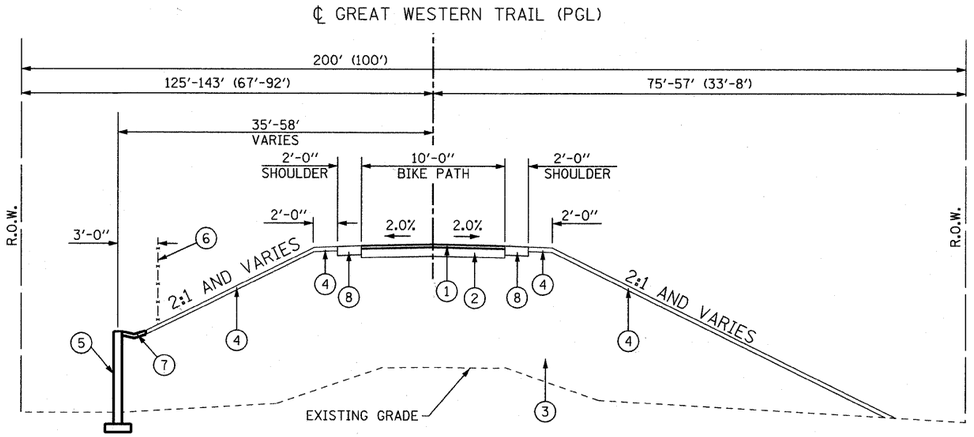
USER NAME = daly	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/22/2011	DATE -	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL
TYPICAL SECTIONS

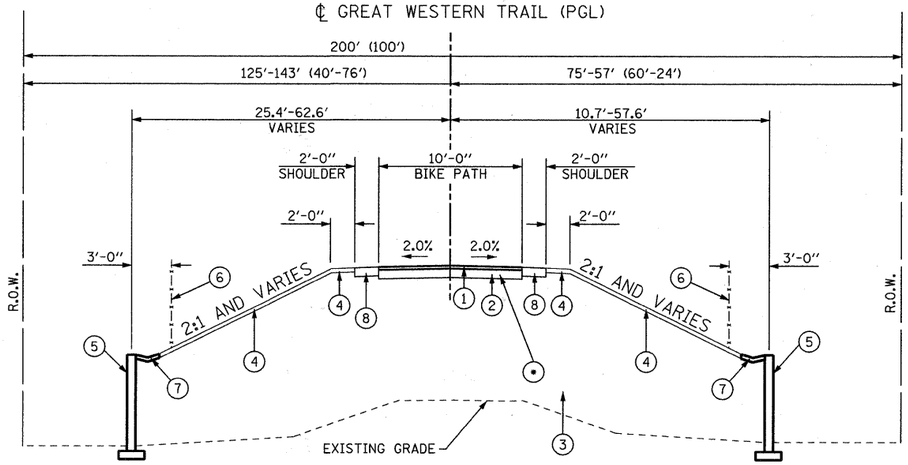
SCALE: N.T.S. | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	7
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		



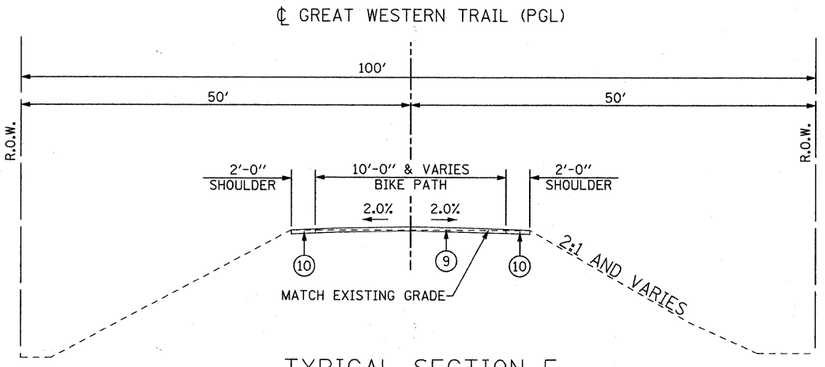
PROPOSED TYPICAL SECTION D

MSE WALL ON NORTH SIDE
(BRIDGE OMISSION STA. 24+10.55 TO STA. 25+53.39)
STA. 19+26.90 TO STA. 19+96.72, GREAT WESTERN TRAIL
STA. 23+15.00 TO STA. 24+10.55, GREAT WESTERN TRAIL



PROPOSED TYPICAL SECTION E

MSE WALL ON BOTH SIDES
(BRIDGE OMISSION STA. 20+44.09 TO STA. 22+31.09)
STA. 19+96.72 TO STA. 20+44.09, GREAT WESTERN TRAIL
STA. 22+31+09 TO STA. 23+15.00, GREAT WESTERN TRAIL



TYPICAL SECTION F

STA. 28+00.00 TO STA. 33+00.00, GREAT WESTERN TRAIL

NOTE: GRADING AND DISTURBANCE LIMTED TO 14 FOOT WIDTH ALONG ALIGNMENT IN THIS SECTION

NOTE: FOR LIGHT POLE LOCATIONS REFER TO TYPICAL SECTIONS ON SHEET 50 OF 201, "LIGHTING DETAILS".

LEGEND:

(1) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 3"
(2) PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 6"
(3) EARTH EMBANKMENT
(4) PROPOSED SEEDING CLASS 4 AND EROSION BLANKET
(5) MSE RETAINING WALL, VARIABLE HEIGHT
(6) CHAIN LINK FENCE, 5'
(7) TYPE B GUTTER
(8) PROPOSED AGGREGATE SHOULDERS, TYPE B 6"
(9) PROPOSED AGGREGATE SURFACE COURSE, TYPE B 6"
(10) FURNISH & PLACE 4" TOPSOIL, SEED CLASS 2
(•) MOMENT SLAB AT GRADE 1' RIGHT OF CENTERLINE TO WALL STA.22+29.87 TO STA. 23+15.00 SEE SHEET PARAPET AND MOMENT SLAB PLAN AND ELEVATION STRUCTURE NO. 022-3122

HMA MIXTURE REQUIREMENTS CHART		
MIXTURE TYPE	AIR VOIDS	THICKNESS
1. BIKEPATH HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 mm)	4% @ 50 GYR.	3" (IN 2 LIFTS)
2. BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 mm)	4% @ 50 GYR.	3"-15" (4" MAX LIFTS)

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HOT MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD/IN

NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-typical_2.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL
TYPICAL SECTIONS

SCALE: N.T.S. | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	8
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION	OFFSET	UNITS
11+27	15L	8
10+13	13L	8 10
10+27	17L	7
10+50	20L	6
10+74	17L	7
11+81	1R	10
11+99	64L	8
12+00	73L	12
12+01	69L	9
12+14	93L	6
12+28	6L	6
12+35	3R	10
13+58	100L	12
13+54	104L	12
13+56	107L	12
13+54	107L	12
14+47	15R	6
15+12	9R	7
15+38	11R	7
15+54	14R	8
15+80	12R	7
26+57	24L	9
26+61	27L	7
26+73	22L	11
26+74	18L	10
26+86	16L	9
26+86	20L	7
26+94	40L	7
27+05	29L	6
27+23	25L	9
27+32	21L	8
27+04	17L	7
27+04	13L	9
27+10	11L	13
27+46	7R	6
27+71	7L	9
27+60	13R	7
26+66	39L	12
28+20	15L	9
MORRIS POND		81
TOTAL:		426

TREE REMOVAL (OVER 15 UNITS DIAMETER)

STATION	OFFSET	UNITS
13+73	14L	25
24+56	71L	37
30+52	13R	18
31+21	13R	18
MORRIS POND		105
TOTAL:		203

TREE REMOVAL, ACRES

STATION FROM	STATION TO	OFFSET	QUANTITY (ACRES)
15+50	21+00		2.1
21+00	24+48		0.7
25+33	26+50		0.2
TOTAL:			3.0

REMOVING CATCH BASIN

LOCATION STATION	OFFSET	QUANTITY (FOOT)	QUANTITY (EACH)
14+10	135' LT		1
TOTAL:			1

REMOVE EXISTING FLARED END SECTION

LOCATION STATION	OFFSET	QUANTITY (FOOT)	QUANTITY (EACH)
13+60	86' LT		1
13+60	50' LT		1
TOTAL:			2

PAVEMENT REMOVAL

LOCATION STATION	OFFSET	QUANTITY (SFT)	QUANTITY (SYD)
11+50 – 13+50	0'–70' LT	3,393	377
TOTAL:			377

STORM SEWER REMOVAL, 12"

LOCATION STATION	OFFSET	QUANTITY (FOOT)	QUANTITY (EACH)
13+66	50' LT	33.0	
TOTAL:			33.0

RUSTIC FENCE REMOVAL

LOCATION STATION	OFFSET	QUANTITY (FOOT)	QUANTITY (EACH)
14+37	88' LT	72	
TOTAL:			72

SIDEWALK REMOVAL

LOCATION STATION–STATION	LENGTH	WIDTH	AREA	QUANTITY (SQ.FT)
GRACE STREET				
201+43 TO 202+43/L	100	5	500	500
201+43 TO 202+43/L	35	5	175	175
FINLEY ROAD POND	21	5	105	105
TOTAL:				780

COMBINATION CONCRETE CURB & GUTTER, TYPE B–6.12 REMOVAL

LOCATION STATION–STATION	LENGTH	QUANTITY (FOOT)
GRACE STREET		
201+90 TO 202+20/L	30	30
201+90 TO 202+20/R	30	30
FINLEY ROAD POND	30	30
TOTAL:		90

USER NAME = cesario	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/26/2011	DATE -	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
SCHEDULES

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	9
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

EARTHWORK QUANTITIES

LOCATION (STA TO STA)	UNSUITABLE REMOVAL (CU YD)	EARTH EX. (CU YD)	EARTH EX. ADJUSTED FOR SHRINKAGE (CU YD)	STRUCTURE EXCAVATION (CU YD)	STRUCTURE EXCAVATION ADJ. FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	BORROW EXCAVATION (CU YD)	BORROW EXCAVATION ADJUSTED FOR SHRINKAGE (CU YD)	FURNISHED EXCAVATION REQUIRED (CU YD)
10+00 TO GRACE STREET	1054.2	178.2	151.2	230	195.5	3,680.2	-3,372.3			
GRACE STREET TO UPRR	2,101.2	2,297.6	1,953.0	856.6	728.1	13,986.7	-11,353.2			
UPRR TO ST. CHARLES ROAD	501.5	193.2	164.2	1864.0	1,584.4	3,697.0	-1,948.4			
ST. CHARLES ROAD TO 33+00	0.0	308.3	262.1	520.0	442.0	1,225.3	-521.2			
FINLEY ROAD POND	0.0							1,600	1,360	
MORRIS AVENUE POND	0.0							5,300	4,505	
TOTAL	3,656.8	2,977.3	2,530.5	3,470.6	2,950.0	21,849.4	-16,368.9	6,900	5,865	10,503.9

NOTE: SHRINKAGE FACTOR CALCULATED AS 15% FOR THE LIMITS OF THE GREAT WESTERN TRAIL

STORM SEWERS, CLASS A, TYPE 2, 12"

PIPE #	STRUCTURE FROM	STRUCTURE TO	LINEAR FEET	QUANTITY (FOOT)
1	1	2	30	30
2	3	4	12	12
3	4	5	13	13
4	6	7	10	10
5	7	8	13	13
6	9	10	98	98
7	10	11	100	100
8	12	13	10	10
9	13	14	17	17
10	15	16	19	19
12	18	19	11	11
13	19	20	16	16
			TOTAL:	349

COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

LOCATION STATION-STATION	LENGTH	QUANTITY (FOOT)
GRACE STREET		
201+90 TO 202+20/L	30	30
201+90 TO 202+20/R	30	30
FINLEY ROAD POND	30	30
	TOTAL:	90

INLETS, TYPE A, TYPE 3 FRAME & GRATE

STRUCTURE#	STATION	OFFSET	QUANTITY (EACH)
5	13+33.30	6.87 RT	1
8	14+77.81	6.88 RT	1
14	20+32.48	6.87 RT	1
20	25+54.03	6.87 RT	1
	TOTAL:		4

CATCH BASIN, TYPE A, TYPE 1 FRAME & GRATE

STRUCTURE#	STATION	OFFSET	QUANTITY (EACH)
9	14+10.95	134.90 LT	1
		TOTAL:	1

PORTLAND CEMENT CONCRETE SIDEWALK, 4"

LOCATION STATION-STATION	LENGTH	WIDTH	AREA (SQ FT)
GRACE STREET			
201+43 TO 202+43/L	100	5	520
201+43 TO 202+43/L	35	5	170
GRACE ST BRIDGE WEST			296
GRACE STREET BRIDGE EAST			196
ST CHARLES BRIDGE WEST			205
ST CHARLES BRIDGE EAST			99
FINLEY POND			105
	TOTAL:		1591

COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24

LOCATION STATION-STATION	LENGTH	QUANTITY (FOOT)
AT BRIDGE APPROACHES		
GRACE STREET - NE	27	27
GRACE STREET - SE	27	27
GRACE STREET - NW	27	27
GRACE STREET - SW	27	27
UP RAILROAD - NE	10	10
UP RAILROAD - NW	10	10
UP RAILROAD - SW	10	10
ST. CHARLES ROAD - NE	10	10
ST. CHARLES ROAD - SE	10	10
	TOTAL:	158

INLETS, TYPE B, TYPE 3 FRAME & GRATE

STRUCTURE#	STATION	OFFSET	QUANTITY (EACH)
4	13+32.29	6.87 LT	1
7	14+76.80	6.87 LT	1
13	20+43.71	6.88 LT	1
16	22+47.38	6.87 LT	1
19	25+63.02	6.87 LT	1
	TOTAL:		5

INLETS, TYPE B, TYPE 8 FRAME & GRATE

STRUCTURE#	STATION	OFFSET	QUANTITY (EACH)
10	15+00	95' LT	1
11	16+00	95' LT	1
	TOTAL:		2

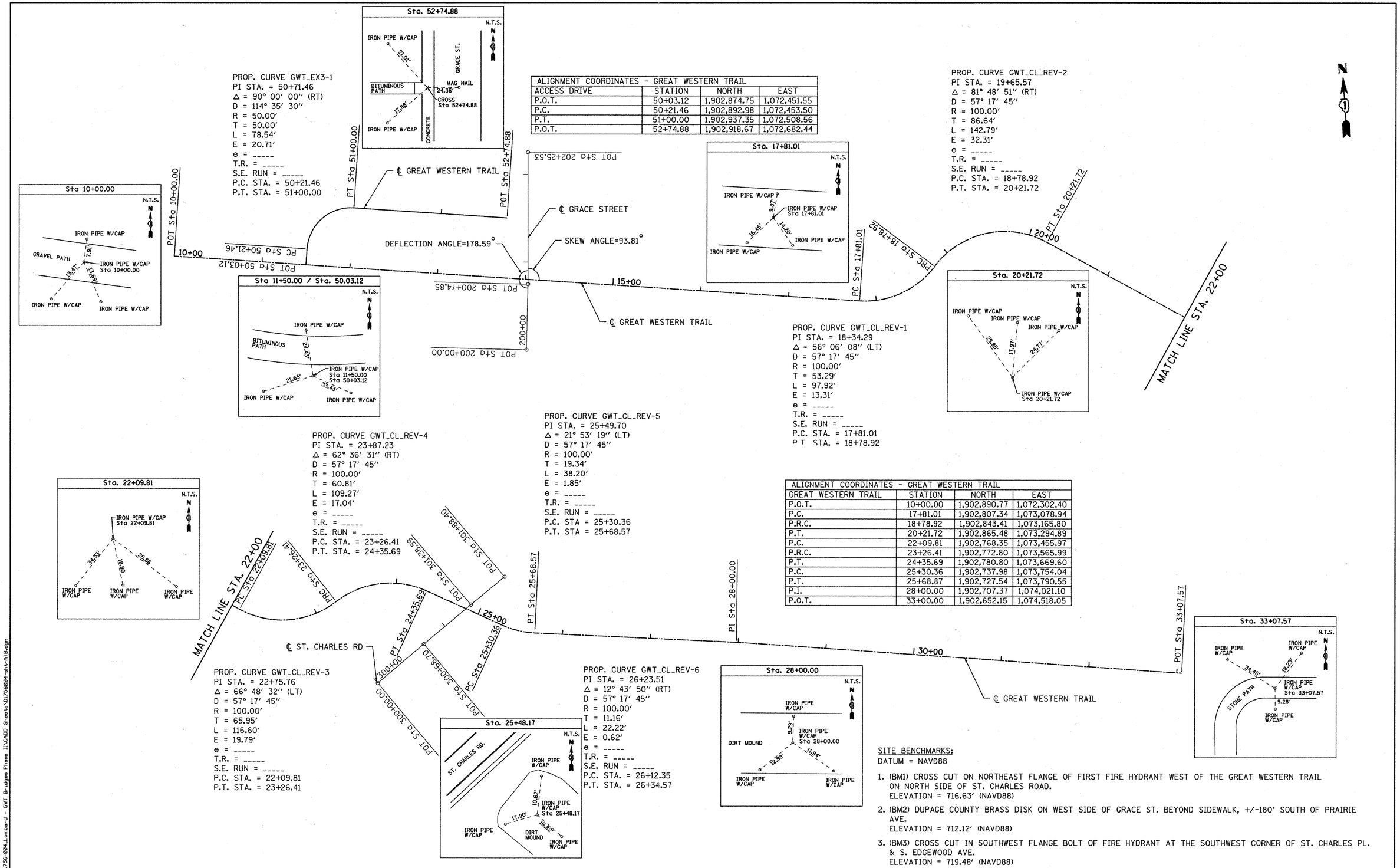
USER NAME = cesario	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/26/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
SCHEDULES

SCALE: | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	10
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



SITE BENCHMARKS:
DATUM = NAVD88

1. (BM1) CROSS CUT ON NORTHEAST FLANGE OF FIRST FIRE HYDRANT WEST OF THE GREAT WESTERN TRAIL ON NORTH SIDE OF ST. CHARLES ROAD.
   ELEVATION = 716.63' (NAVD88)
2. (BM2) DUPAGE COUNTY BRASS DISK ON WEST SIDE OF GRACE ST. BEYOND SIDEWALK, +/-180' SOUTH OF PRAIRIE AVE.
   ELEVATION = 712.12' (NAVD88)
3. (BM3) CROSS CUT IN SOUTHWEST FLANGE BOLT OF FIRE HYDRANT AT THE SOUTHWEST CORNER OF ST. CHARLES PL. & S. EDGEWOOD AVE.
   ELEVATION = 719.48' (NAVD88)

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-ATB.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = daly	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/22/2011	DATE -	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

ALIGNMENT AND BENCHMARKS

SCALE: 1"=50' | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	11
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

PROP. CURVE 2	NORTH COORDINATE	EAST COORDINATE
PI STA. = 301+25.83	1940525.31	1042589.33
Δ = 1° 47′ 50″ (RT)		
D = 1° 00′ 22″		
R = 5,695.28′		
T = 89.33′		
L = 178.64′		
E = 0.70′		
P.C. STA = 300+36.51	1940481.35	1042511.57
P.T. STA = 302+15.15	1940566.81	1042668.43

PROP. CURVE 3	NORTH COORDINATE	EAST COORDINATE
PI STA. = 302+20.89	1940569.48	1042673.52
Δ = 6° 05′ 17″ (RT)		
D = 53° 03′ 06″		
R = 108.00′		
T = 5.74′		
L = 11.48′		
E = 0.15′		
P.C. STA. = 302+15.15	1940566.81	1042668.43
P.T. STA. = 302+26.62	1940571.59	1042678.86

PROP. CURVE 4	NORTH COORDINATE	EAST COORDINATE
PI STA. = 302+73.92	1940589.00	1042722.84
Δ = 3° 12′ 09″ (LT)		
D = 57° 17′ 45″		
R = 100.00′		
T = 2.80′		
L = 5.59′		
E = 0.04′		
P.C. STA. = 302+71.13	1940587.97	1042720.24
P.T. STA. = 302+76.72	1940590.17	1042725.37

PROP. CURVE 5	NORTH COORDINATE	EAST COORDINATE
PI STA. = 304+82.47	1940676.46	1042912.16
Δ = 4° 09′ 56″ (RT)		
D = 18° 36′ 09″		
R = 308.00′		
T = 11.20′		
L = 22.39′		
E = 0.20′		
P.C. STA. = 304+71.26	1940671.76	1042901.99
P.T. STA. = 304+93.66	1940680.41	1042922.64

PROP. CURVE 6	NORTH COORDINATE	EAST COORDINATE
PI STA. = 305+92.66	1940715.29	1043015.29
Δ = 5° 41′ 03″ (LT)		
D = 57° 17′ 45″		
R = 100.00′		
T = 4.96′		
L = 9.92′		
E = 0.12′		
P.C. STA. = 305+87.70	1940713.54	1043010.65
P.T. STA. = 305+97.62	1940717.49	1043019.74

PROP. CURVE 7	NORTH COORDINATE	EAST COORDINATE
PI STA. = 307+03.84	1940768.61	1043112.77
Δ = 32° 38′ 34″ (LT)		
D = 57° 17′ 45″		
R = 100.00′		
T = 29.28′		
L = 56.97′		
E = 4.20′		
P.C. STA. = 306+74.56	1940753.71	1043087.57
P.T. STA. = 307+31.53	1940794.76	1043125.96

PROP. CURVE 8	NORTH COORDINATE	EAST COORDINATE
PI STA. = 307+67.49	1940826.87	1043142.15
Δ = 36° 55′ 26″ (RT)		
D = 53° 11′ 46″		
R = 107.71′		
T = 35.96′		
L = 69.41′		
E = 5.84′		
P.C. STA. = 307+31.53	1940794.76	1043125.96
P.T. STA. = 308+00.94	1940842.81	1043174.38

PROP. CURVE 9	NORTH COORDINATE	EAST COORDINATE
PI STA. = 310+55.35	1940955.59	1043402.43
Δ = 37° 50′ 31″ (RT)		
D = 98° 47′ 09″		
R = 58.00′		
T = 19.88′		
L = 38.31′		
E = 3.31′		
P.C. STA. = 310+35.47	1940946.78	1043384.61
P.T. STA. = 310+73.78	1940951.62	1043421.91

PROP. CURVE 10	NORTH COORDINATE	EAST COORDINATE
PI STA. = 310+86.95	1940948.99	1043434.81
Δ = 29° 30′ 34″ (LT)		
D = 114° 35′ 30″		
R = 50.00′		
T = 13.17′		
L = 25.75′		
E = 1.70′		
P.C. STA. = 310+73.78	1940951.62	1043421.91
P.T. STA. = 310+99.53	1940953.05	1043447.33

PROP. CURVE 11	NORTH COORDINATE	EAST COORDINATE
PI STA. = 314+64.60	1941112.73	1043775.42
Δ = 49° 29′ 17″ (RT)		
D = 34° 43′ 29″		
R = 165.00′		
T = 76.05′		
L = 142.52′		
E = 16.68′		
P.C. STA. = 313+88.55	1941079.02	1043707.26
P.T. STA. = 315+31.07	1941082.80	1043845.33

PROP. CURVE 12	NORTH COORDINATE	EAST COORDINATE
PI STA. = 322+12.90	1940820.49	1044474.68
Δ = 8° 19′ 26″ (LT)		
D = 19° 37′ 19″		
R = 292.00′		
T = 21.25′		
L = 42.42′		
E = 0.77′		
P.C. STA. = 321+91.65	1940828.61	1044455.04
P.T. STA. = 322+34.07	1940815.30	1044495.28

PROP. CURVE 10A	NORTH COORDINATE	EAST COORDINATE
PI STA. = 310+90.35	1940971.11	1043433.80
Δ = 31° 16′ 36″ (RT)		
D = 208° 20′ 54″		
R = 27.50′		
T = 7.70′		
L = 15.01′		
E = 1.06′		
P.C. STA = 310+82.65	1940967.69	1043426.90
P.T. STA = 310+97.67	1940970.44	1043441.47

PROP. CURVE 13	NORTH COORDINATE	EAST COORDINATE
PI STA. = 322+50.36	1940811.32	1044511.07
Δ = 5° 38′ 50″ (RT)		
D = 18° 36′ 09″		
R = 308.00′		
T = 15.19′		
L = 30.36′		
E = 0.37′		
P.C. STA. = 322+35.16	1940815.04	1044496.34
P.T. STA. = 322+65.52	1940806.18	1044525.37

PROP. CURVE 14	NORTH COORDINATE	EAST COORDINATE
PI STA. = 325+28.06	1940707.60	1044768.64
Δ = 23° 10′ 19″ (LT)		
D = 114° 35′ 30″		
R = 50.00′		
T = 10.25′		
L = 20.22′		
E = 1.04′		
P.C. STA = 325+17.81	1940711.53	1044759.17
P.T. STA = 325+38.03	1940707.72	1044778.89

PROP. CURVE 15	NORTH COORDINATE	EAST COORDINATE
PI STA. = 325+48.32	1940707.83	1044789.18
Δ = 23° 16′ 05″ (RT)		
D = 114° 35′ 30″		
R = 50.00′		
T = 10.29′		
L = 20.31′		
E = 1.05′		
P.C. STA = 325+38.03	1940707.72	1044778.89
P.T. STA = 325+58.33	1940703.87	1044798.68

PROP. CURVE 16	NORTH COORDINATE	EAST COORDINATE
PI STA. = 326+36.34	1940671.27	1044868.65
Δ = 23° 06′ 13″ (RT)		
D = 190° 59′ 09″		
R = 30.00′		
T = 6.13′		
L = 12.10′		
E = 0.62′		
P.C. STA = 326+30.21	1940676.22	1044865.03
P.T. STA = 326+42.31	1940665.30	1044870.04

PROP. CURVE 17	NORTH COORDINATE	EAST COORDINATE
PI STA. = 327+97.80	1940604.48	1045015.96
Δ = 39° 16′ 44″ (RT)		
D = 95° 29′ 35″		
R = 60.00′		
T = 21.41′		
L = 41.13′		
E = 3.71′		
P.C. STA = 327+76.39	1940612.72	1044996.20
P.T. STA = 328+17.52	1940585.59	1045026.04

PROP. CURVE 18	NORTH COORDINATE	EAST COORDINATE
PI STA. = 328+22.80	1940580.93	1045028.53
Δ = 4° 55′ 07″ (RT)		
D = 46° 35′ 34″		
R = 122.97′		
T = 5.28′		
L = 10.56′		
E = 0.11′		
P.C. STA = 328+17.52	1940585.59	1045026.04
P.T. STA = 328+28.08	1940576.08	1045030.61

PROP. CURVE 10B	NORTH COORDINATE	EAST COORDINATE
PI STA. = 311+73.31	1940996.06	1043512.64
Δ = 23° 30′ 38″ (RT)		
D = 114° 35′ 30″		
R = 50.00′		
T = 10.40′		
L = 20.52′		
E = 1.07′		
P.C. STA = 311+62.90	1940992.54	1043502.85
P.T. STA = 311+83.42	1940995.39	1043523.02

PROP. CURVE 19	NORTH COORDINATE	EAST COORDINATE
PI STA. = 329+33.14	1940545.99	1045129.84
Δ = 28° 10′ 59″ (RT)		
D = 186° 16′ 40″		
R = 30.76′		
T = 7.72′		
L = 15.13′		
E = 0.95′		
P.C. STA. = 329+25.42	1940551.84	1045124.80
P.T. STA. = 329+40.55	1940538.45	1045131.52

PROP. CURVE 20	NORTH COORDINATE	EAST COORDINATE
PI STA. = 329+47.99	1940531.18	1045133.10
Δ = 73° 18′ 39″ (LT)		
D = 572° 57′ 28″		
R = 10.00′		
T = 7.44′		
L = 12.80′		
E = 2.47′		
P.C. STA. = 329+40.55	1940538.45	1045131.52
P.T. STA. = 329+53.35	1940530.61	1045140.52

PROP. CURVE 21	NORTH COORDINATE	EAST COORDINATE
PI STA. = 329+78.72	1940528.64	1045165.82
Δ = 13° 16′ 25″ (LT)		
D = 57° 17′ 45″		
R = 100.00′		
T = 11.64′		
L = 23.17′		
E = 0.67′		
P.C. STA. = 329+67.09	1940529.54	1045154.22
P.T. STA. = 329+90.25	1940530.43	1045177.32

PROP. CURVE 22	NORTH COORDINATE	EAST COORDINATE
PI STA. = 330+20.25	1940535.03	1045206.96
Δ = 31° 02′ 34″ (RT)		
D = 53° 03′ 06″		
R = 108.00′		
T = 29.99′		
L = 58.51′		
E = 4.09′		
P.C. STA. = 329+90.25	1940530.43	1045177.32
P.T. STA. = 330+48.77	1940523.69	1045234.72

PROP. CURVE 23	NORTH COORDINATE	EAST COORDINATE
PI STA. = 335+74.20	1940324.16	1045719.71
Δ = 13° 35′ 05″ (RT)		
D = 53° 03′ 06″		
R = 108.00′		
T = 12.86′		
L = 25.61′		
E = 0.76′		
P.C. STA. = 335+61.34	1940328.78	1045707.70
P.T. STA. = 335+86.95	1940316.85	1045730.29

PROP. CURVE 24	NORTH COORDINATE	EAST COORDINATE
PI STA. = 335+96.57	1940311.38	1045738.20
Δ = 10° 59′ 24″ (LT)		
D = 57° 17′ 45″		
R = 100.00′		
T = 9.62′		
L = 19.18′		
E = 0.46′		
P.C. STA. = 335+86.95	1940316.85	1045730.29
P.T. STA. = 336+06.13	1940307.52	1045747.01

PROP. CURVE 10C	NORTH COORDINATE	EAST COORDINATE
PI STA. = 311+96.83	1940994.52	1043536.41
Δ = 30° 01′ 41″ (LT)		
D = 114° 35′ 30″		
R = 50.00′		
T = 13.41′		
L = 26.20′		
E = 1.77′		
P.C. STA = 311+83.42	1940995.39	1043523.02
P.T. STA = 312+09.63	1941000.46	1043548.43

PROP. CURVE 25	NORTH COORDINATE	EAST COORDINATE
PI STA. = 336+94.30	1940273.59	1045828.40
Δ = 22° 09′ 14″ (LT)		
D = 114° 35′ 30″		
R = 50.00′		
T = 9.79′		
L = 19.33′		
E = 0.95′		
P.C. STA. = 336+84.51	1940277.36	1045819.37
P.T. STA. = 337+03.85	1940273.51	1045838.19

PROP. CURVE 26	NORTH COORDINATE	EAST COORDINATE
PI STA. = 337+14.52	1940273.43	1045848.87
Δ = 20° 51′ 37″ (RT)		
D = 98° 47′ 09″		
R = 58.00′		
T = 10.68′		
L = 21.12′		
E = 0.97′		
P.C. STA. = 337+03.85	1940273.51	1045838.19
P.T. STA. = 337+24.96	1940269.55	1045858.81

PROP. CURVE 27	NORTH COORDINATE	EAST COORDINATE
PI STA. = 339+52.65	1940186.76	1046070.91
Δ = 10° 05′ 12″ (RT)		
D = 28° 38′ 52″		
R = 200.00′		
T = 17.65′		
L = 35.21′		
E = 0.78′		
P.C. STA. = 339+35.00	1940193.17	1046054.47
P.T. STA. = 339+70.20	1940177.56	1046085.97

PROP. CURVE 28	NORTH COORDINATE	EAST COORDINATE
PI STA. = 340+19.66	1940151.79	1046128.18
Δ = 8° 42′ 00″ (LT)		
D = 28° 38′ 52″		
R = 200.00′		
T = 15.21′		
L = 30.37′		
E = 0.58′		
P.C. STA. = 340+04.45	1940159.71	1046115.20
P.T. STA. = 340+34.81	1940145.91	1046142.22

PROP. CURVE 29	NORTH COORDINATE	EAST COORDINATE
PI STA. = 342+11.27	1940077.79	1046304.99
Δ = 1° 00′ 19″ (RT)		
D = 0° 17′ 05″		
R = 20,113.92′		
T = 176.46′		
L = 352.90′		
E = 0.77′		
P.C. STA. = 340+34.81	1940145.91	1046142.22
P.T. STA. = 343+87.72	1940006.83	1046466.55

PROP. CURVE 30	NORTH COORDINATE	EAST COORDINATE
PI STA. = 351+16.88	1939713.58	1047134.14
Δ = 79° 43′ 26″ (LT)		
D = 1145° 54′ 56″		
R = 5.00′		
T = 4.18′		
L = 6.96′		
E = 1.51′		
P.C. STA. = 351+12.70	1939715.26	1047130.32
P.T. STA. = 351+19.66	1939717.04	1047136.47

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-ATB.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

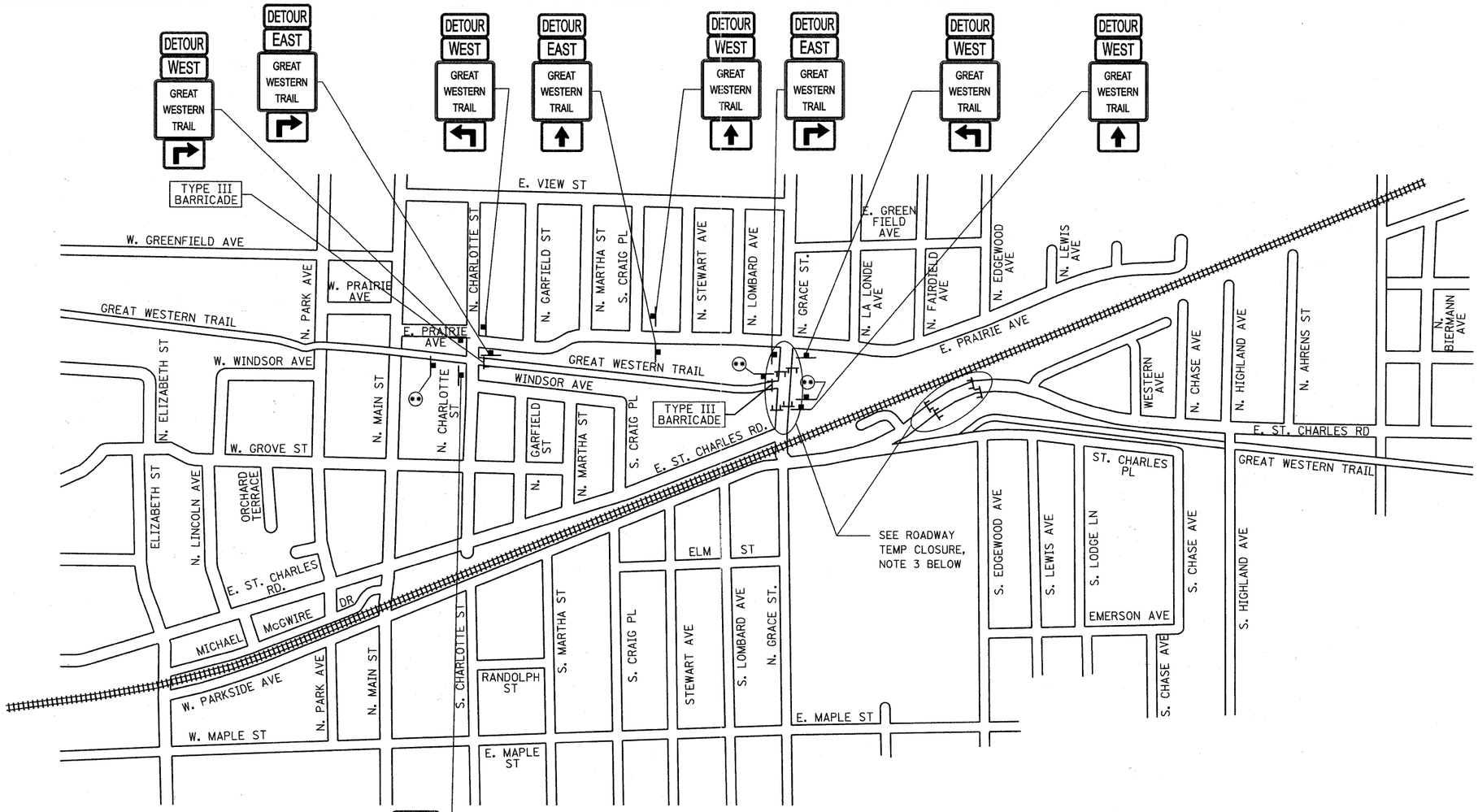
USER NAME = daly	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 100.0000 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/22/2011	DATE -	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
ALIGNMENT, TIES AND BENCHMARKS

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	12
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



TEMPORARY DETOUR

N

GREAT WESTERN TRAIL WILL BE CLOSED FROM GRACE STREET TO N. CHARLOTTE STREET (DATE) TO (DATE)

36" x 36" (9 SQ. FT.)

(**) ADVANCE CLOSURE SIGN

GREAT WESTERN TRAIL CLOSED FROM GRACE STREET TO N. CHARLOTTE STREET (DATE) TO (DATE)

36" x 36" (9 SQ. FT.)

(**) TRAIL CLOSURE SIGN

NOTE: ADD 6" x 30" (1.25 SQ. FT.) PANEL WITH "CLOSED" TEXT OVER THE SECOND LINE OF ADVANCED CLOSURE SIGN

NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING"

SIGNAGE LEGEND

M5-1L-2115	DETOUR	M4-8-2412	GREAT WESTERN TRAIL	36"x36"	
M5-1R-2115	NORTH	M3-1-2412			
M6-1R-2115	SOUTH	M3-3-2412			
M6-1L-2115	EAST	M3-2-2412	(**)	ADVANCE CLOSURE SIGNAGE (SEE PAGE RIGHT)	
M6-3-2115	WEST	M3-4-2412		TYPE 3 BARRICADE	
	END	M4-6-2412			

ROADWAY TEMPORARY CLOSURE NOTES

1. THE TEMPRARY TRAFFIC CONTROL GENERALLY APPLIES TO MSE WALL CONSTRUCTION AND BRIDGE BEAM INSTALLATIONS BUT INCLUDES ALL WORK IN THE ROADWAY. THE WORK TRAFFIC CONTROL SHALL BE FOR DAYTIME OPERATIONS ONLY AND NOT BE LEFT INSTALLED OVERNIGHT.

2. CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT LEAST TWO WEEKS PRIOR TO CLOSING ST. CHARLES ROAD AND GRACE STREET FOR DAYTIME BRIDGE ERECTION WORK. THE VILLAGE OF LOMBARD (PHONE (630) 620-5740) SHALL BE NOTIFIED TWO DAYS PRIOR TO PLACEMENT OF THESE SIGNS. SIGNS SHALL BE INSTALLED PER THE SPECIFICATIONS AND DETAILS AND AS DIRECTED BY ENGINEER.

3. TYPE III BARRICADES SHALL BE INSTALLED FOR THE DAYTIME ROAD CLOSURES ON ST. CHARLES ROAD AND GRACE STREET AND ONLY AFTER THE CHANGEABLE MESSAGE SIGNS HAVE BEEN OPERATING FOR AT LEAST TWO WEEKS. BARRICADES SHALL BE INSTALLED PER THE PLANS AND AS DIRECTED BY ENGINEER.

GREAT WESTERN TRAIL TEMPORARY CLOSURE NOTES

THE CONTRACTOR SHALL NOTIFY THE ENGINEER 4 WEEKS PRIOR TO THE START OF WORK AT THE SITE AND SHALL INSTALL THE ADVANCE CLOSURE SIGNS AT GRACE STREET AND AT N. CHARLOTTE STREET. THE LOCATION OF THE MOUNTING OF SIGNS SHALL BE APPROVED BY THE ENGINEER.

WHEN SITE WORK BEGINS, A PANEL WITH THE WORD "CLOSED" SHALL BE PLACED OVER THE "WILL BE CLOSED" TEXT ON THE ADVANCE CLOSURE SIGN AND TYPE III BARRICADES SHALL BE PLACED AT THE TRAIL AT GRACE STREET.

THE "ADVANCE CLOSURE SIGNS" SHALL BE PAID FOR AS "TEMPORARY INFORMATION SIGNING"

AT THE END OF EACH WORK DAY, THE TYPE III BARRICADES AT THE WORK ZONE SHALL BE PLACED ACROSS THE TRAIL AND THE BARRICADES AT THE TRAIL HEADS SHALL BE CHECKED FOR PROPER PLACEMENT ACROSS THE TRAIL.

THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THE GREAT WESTERN TRAIL DETOUR SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-detour.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

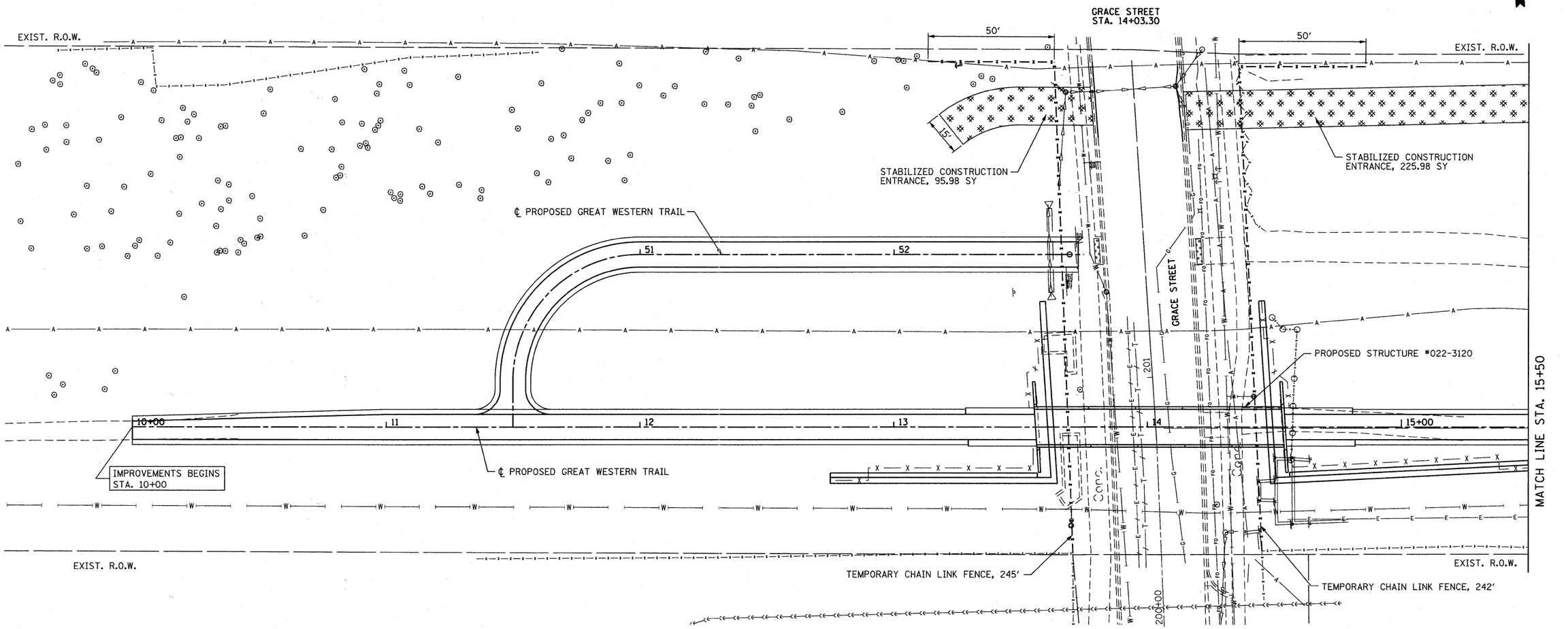
USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GREAT WESTERN TRAIL BIKE PATH
DETOUR PLAN

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	13
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. CONTRACTOR SHALL PROVIDE SIGNAGE AND TRAFFIC CONTROL PROTECTION AS SHOWN IN THE PLANS, SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
2. NO LANE CLOSURES SHALL EXTEND BEYOND THE WORK DAY. THEY SHALL BE DAYTIME CLOSURES ONLY.
3. DURING BRIDGE CONSTRUCTION WHEN THE ROAD IS CLOSED, THE CLOSURE SHALL BE ADVERTISED TWO WEEKS PRIOR TO ON TEMPORARY INFORMATION SIGNAGE AND THE VILLAGE SHALL BE GIVEN 72 HOUR NOTICE PRIOR TO THE SIGNS BEING PLACED.
4. PROVIDE ADEQUATE SIGNAGE FOR TRUCKS ENTERING AND LEAVING THE CONSTRUCTION ENTRANCES.

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-aht-access1.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

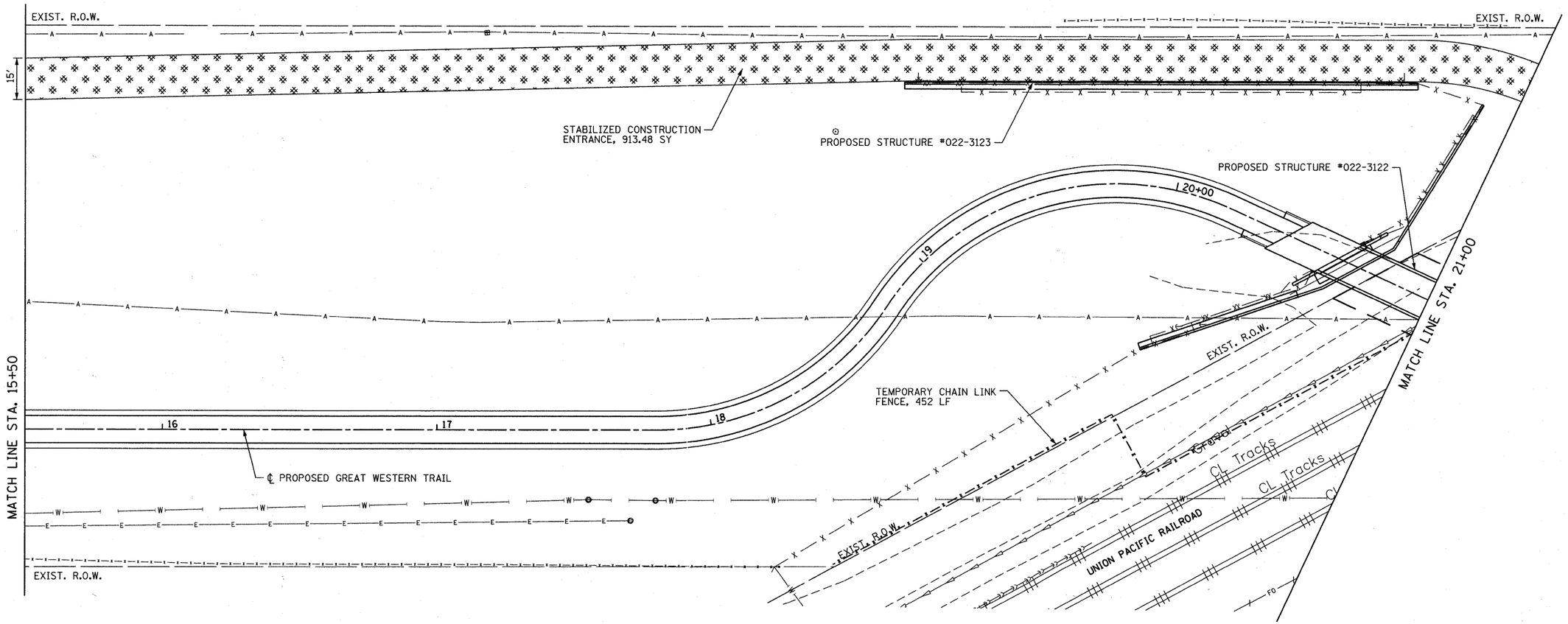
USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

ACCESS PLAN

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 10+00 | TO STA. 15+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	14
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. CONTRACTOR SHALL PROVIDE SIGNAGE AND TRAFFIC CONTROL PROTECTION AS SHOWN IN THE PLANS, SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
2. NO LANE CLOSURES SHALL EXTEND BEYOND THE WORK DAY. THEY SHALL BE DAYTIME CLOSURES ONLY.
3. DURING BRIDGE CONSTRUCTION WHEN THE ROAD IS CLOSED, THE CLOSURE SHALL BE ADVERTISED TWO WEEKS PRIOR TO ON TEMPORARY INFORMATION SIGNAGE AND THE VILLAGE SHALL BE GIVEN 72 HOUR NOTICE PRIOR TO THE SIGNS BEING PLACED.
4. PROVIDE ADEQUATE SIGNAGE FOR TRUCKS ENTERING AND LEAVING THE CONSTRUCTION ENTRANCES.

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-access2.dgn

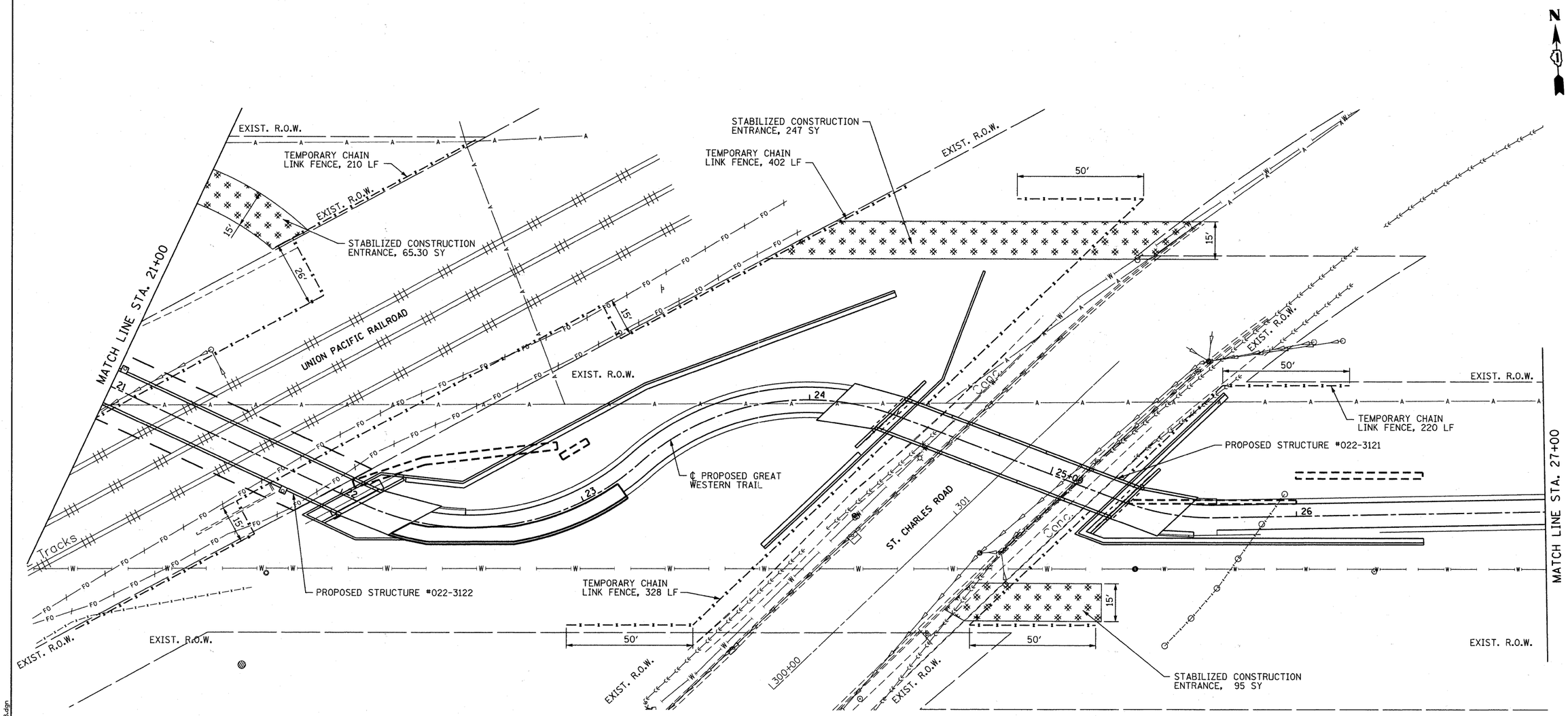
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

ACCESS PLAN

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 15+50 | TO STA. 21+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	15
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. CONTRACTOR SHALL PROVIDE SIGNAGE AND TRAFFIC CONTROL PROTECTION AS SHOWN IN THE PLANS, SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
2. NO LANE CLOSURES SHALL EXTEND BEYOND THE WORK DAY. THEY SHALL BE DAYTIME CLOSURES ONLY.
3. DURING BRIDGE CONSTRUCTION WHEN THE ROAD IS CLOSED, THE CLOSURE SHALL BE ADVERTISED TWO WEEKS PRIOR TO ON TEMPORARY INFORMATION SIGNAGE AND THE VILLAGE SHALL BE GIVEN 72 HOUR NOTICE PRIOR TO THE SIGNS BEING PLACED.
4. PROVIDE ADEQUATE SIGNAGE FOR TRUCKS ENTERING AND LEAVING THE CONSTRUCTION ENTRANCES.

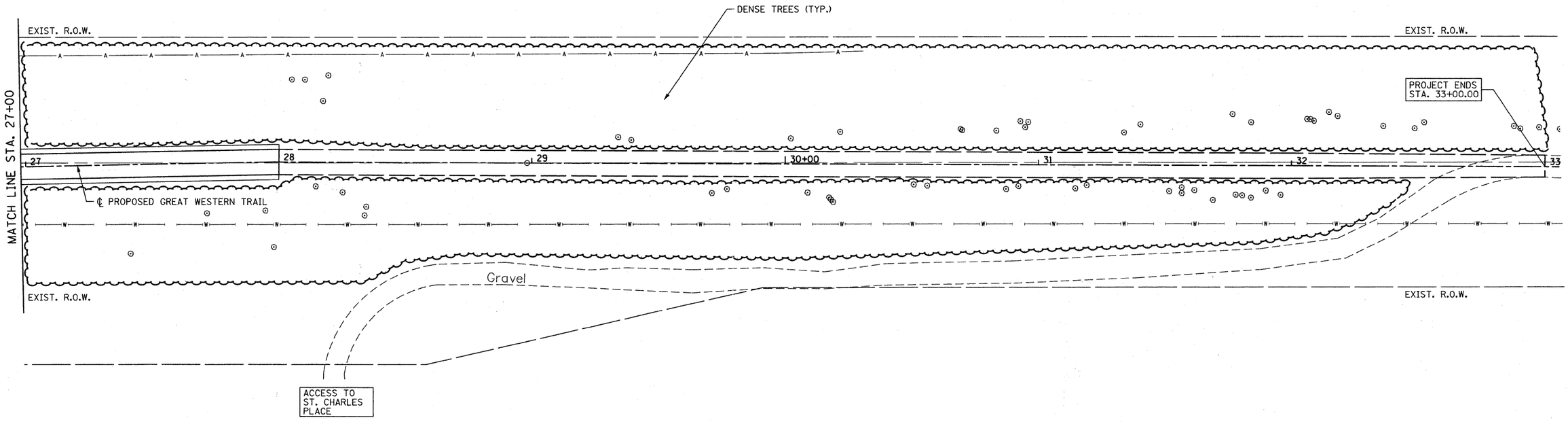
FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\01756004-aht-access3.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL
		DRAWN - DC	REVISED -	
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -	
	PLOT DATE = 7/22/2011	DATE -	REVISED -	

ACCESS PLAN

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 21+00 | TO STA. 27+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	16
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. CONTRACTOR SHALL PROVIDE SIGNAGE AND TRAFFIC CONTROL PROTECTION AS SHOWN IN THE PLANS, SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
2. NO LANE CLOSURES SHALL EXTEND BEYOND THE WORK DAY. THEY SHALL BE DAYTIME CLOSURES ONLY.
3. DURING BRIDGE CONSTRUCTION WHEN THE ROAD IS CLOSED, THE CLOSURE SHALL BE ADVERTISED TWO WEEKS PRIOR TO ON TEMPORARY INFORMATION SIGNAGE AND THE VILLAGE SHALL BE GIVEN 72 HOUR NOTICE PRIOR TO THE SIGNS BEING PLACED.
4. PROVIDE ADEQUATE SIGNAGE FOR TRUCKS ENTERING AND LEAVING THE CONSTRUCTION ENTRANCES.

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-access4.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

ACCESS PLAN

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 27+00 | TO STA. 33+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	17
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

COMBINATION CURB AND GUTTER REMOVAL, 30 FOOT

SIDEWALK REMOVAL, 500 SQ. FT

REMOVE EXISTING FLARED END SECTION

STORM SEWER REMOVAL, 12"

LIMITS OF REMOVAL/CLEARING

EXIST. R.O.W.

STA. 10+00 BEGIN PROJECT

PAVEMENT REMOVAL, 377 SY

Wood Post

Bituminous

Gravel

10+00

11

12

13

14

15+00

℄ PROPOSED GREAT WESTERN TRAIL

EXIST. R.O.W.

GRACE STREET STA. 14+03.30

COMBINATION CURB AND GUTTER REMOVAL, 30 FOOT

SIDEWALK REMOVAL, 175 SQ. FT

EXIST. R.O.W.

INLET R=711.90 I=707.75,N,12"

INLET R=711.87 I=708.87,W,12" I=708.57,E,12"

STORM MANHOLE R=712.12 I=709.62,S,12" I=709.22,NW,12" I=708.68,E,12"

I=709.98,12"RCP

I=711.00,12"RCP

I=711.11,12"RCP

I=711.40,12"RCP

RUSTIC RAIL FENCE REMOVAL, 72 FOOT

REMOVING CATCH BASIN

GRACE STREET

VALVE VAULT R=712.40 T/P=706.40,N,S

36" DWC FENDER MAIN W

LOMBARD WATERMAIN

REMOVE EXISTING FLARED END SECTION

VALVE VAULT CORROSION CONTROL TEST STATION R=713.92 T/P=703.42

CHAIN LINK FENCE REMOVAL 64 FEET

54" DWC TRANSMISSION MAIN

Conc.

12" BLOW OFF VALVE VAULT R=712.66 LOCKED

CATCH BASIN R=712.27 I=711.07,E,6" I=708.97,S,8"

EXIST. R.O.W.

MATCH LINE STA. 15+50

TIMBER PLANTERS TO BE REMOVED AND PAID FOR AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL" (TYP.)

TIMBER PLANTERS TO BE REMOVED AND PAID FOR AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL" (TYP.)

TIMBER PLANTERS TO BE REMOVED AND PAID FOR AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL" (TYP.)

VALVE VAULT 20" BUTTERFLY VALVE

REMOVAL LEGEND

- SIDEWALK REMOVAL
- PAVEMENT REMOVAL
- COMB. CURB & GUTTER REMOVAL
- TREE REMOVAL
- STORM SEWER REMOVAL
- STRUCTURE TO BE REMOVED

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D\756004-sht-exist-cond1.dgn

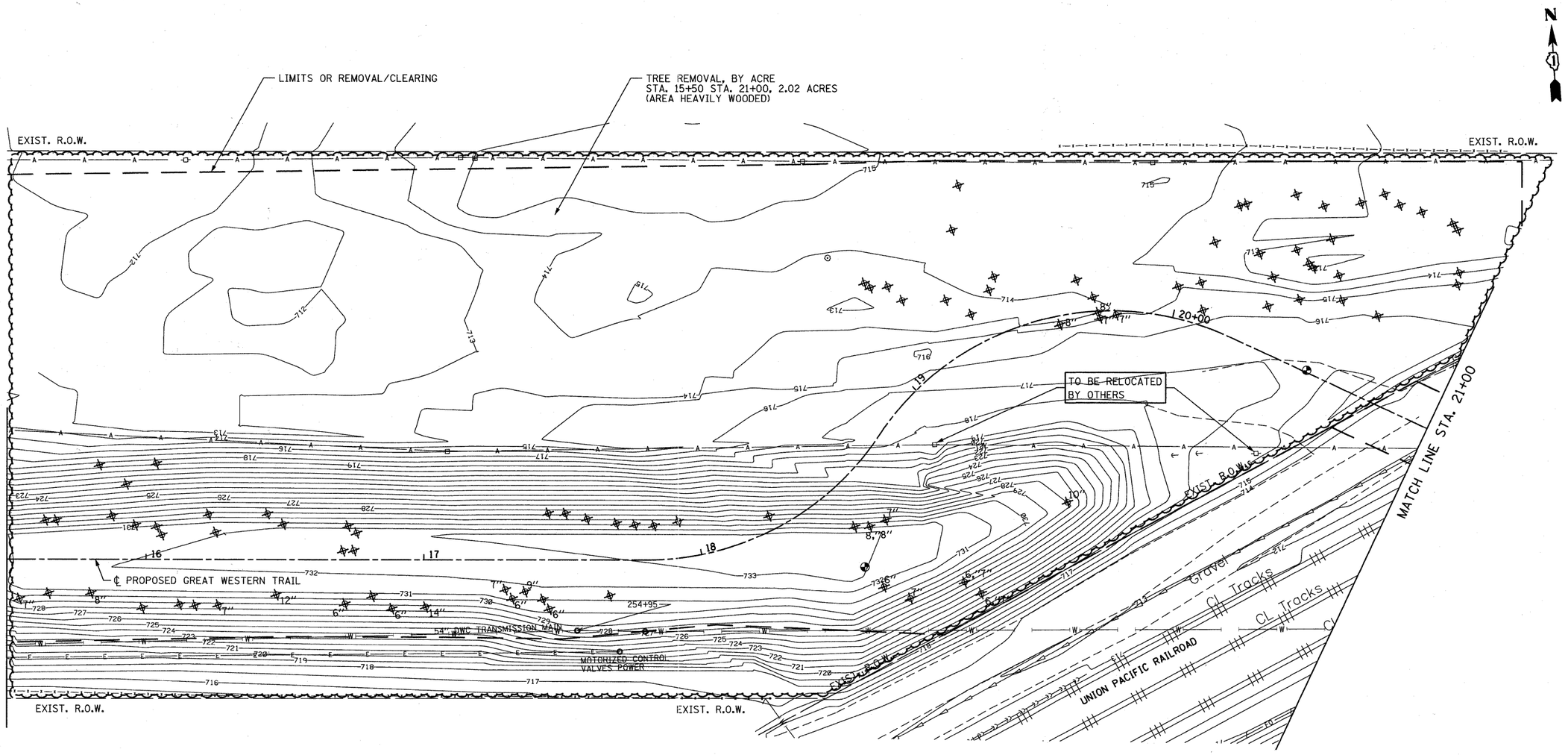
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EXISTING CONDITIONS AND REMOVALS

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 10+00 | TO STA. 15+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	18
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



REMOVAL LEGEND

- SIDEWALK REMOVAL
- PAVEMENT REMOVAL
- COMB. CURB & GUTTER REMOVAL
- TREE REMOVAL
- STORM SEWER REMOVAL
- STRUCTURE TO BE REMOVED
- TREE LIMITS

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-exist-coord2.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EXISTING CONDITIONS AND REMOVALS

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 15+50 | TO STA. 21+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	19
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

N

MATCH LINE STA. 21+00

EXIST. R.O.W.

UNION PACIFIC RAILROAD

CATCH BASIN
R=711.36
I=708.78,S,12"
I=707.41,W,12"

TO BE RELOCATED BY OTHERS

℄ PROPOSED GREAT WESTERN TRAIL

TO BE RELOCATED BY OTHERS

EXIST. R.O.W.

Tracks

54" DWC TRANSMISSION MAIN

EXIST. R.O.W.

EXIST. R.O.W.

LIMITS OF REMOVAL/CLEARING

TREE REMOVAL, BY ACRE
STA. 21+00 STA. 24+48, 0.65 ACRES
(AREA HEAVILY WOODED)

ST. CHARLES ROAD

*STORM MANHOLE
R=714.09
I=707.69,SE,12"
I=705.64,W,18"
I=705.54,E,18"

INLET
R=713.93
I=711.23,E,4"
I=710.73,W,12"

INLET
R=714.13
I=710.18,E,12"

CATCH BASIN
R=714.28
I=712.13,NE,12"

INLET
R=713.96
I=709.43,E,12"
I=709.42,W,12"

INLET
R=713.71
I=711.41,SW,12"
I=708.53,E,12"
I=707.71,NW,12"

INLET
R=714.23
I=711.74,W,4"
I=711.53,NE,4"
I=710.47,W,12"

R=714.25
I=707.85,NE,16"
I=707.65,NW,12"
I=707.55,SE,12"
I=707.55,SE,12"
I=707.55,W,18"

R=713.12
I=712.25,NW,6"

R=713.11
I=711.71,SE,6"
I=708.31,NW,12"

EXIST. R.O.W.

MATCH LINE STA. 27+00

EXIST. R.O.W.

TREE REMOVAL, BY ACRE
STA. 25+33 STA. 26+50, 0.23 ACRES
(AREA HEAVILY WOODED)

CHAIN LINK FENCE REMOVAL,
77 FOOT

REMOVAL LEGEND

- SIDEWALK REMOVAL
- PAVEMENT REMOVAL
- COMB. CURB & GUTTER REMOVAL
- TREE REMOVAL
- STORM SEWER REMOVAL
- STRUCTURE TO BE REMOVED
- TREE LIMITS

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-exist-cond3.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EXISTING CONDITIONS AND REMOVALS

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 21+00 | TO STA. 27+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	20
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

N

LIMITS OF REMOVAL/CLEARING

EXIST. R.O.W.

EXIST. R.O.W.

℄ PROPOSED GREAT WESTERN TRAIL

MATCH LINE STA. 27+00

STA. 33+00.00
END PROJECT

Gravel

EXIST. R.O.W.

EXIST. R.O.W.

REMOVAL LEGEND

- SIDEWALK REMOVAL
- PAVEMENT REMOVAL
- COMB. CURB & GUTTER REMOVAL
- TREE REMOVAL
- STORM SEWER REMOVAL
- STRUCTURE TO BE REMOVED
- TREE LIMITS

FILE NAME = W:\756-0004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-exist-cond4.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EXISTING CONDITIONS AND REMOVALS

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 27+00 | TO STA. 33+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	21
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

PROJECT BEGINS
STA. 10+00

MATCH EXISTING BIKE
PATH STA. 10+00

PROPOSED BIKE PATH PGL

150' TO ROW

50'

EXIST. R.O.W.

PROPOSED GREAT WESTERN TRAIL
- HOT MIX ASPHALT SURFACE COURSE, MIX "C", "N50 3"
- SUB BASE GRANULAR MATERIAL, TYPE B, 6"

PROP. CURVE
GWT_EX3-1

R 50'

R 10'

R 10'

50+18.12
5.00' LT

50+18.12
5.00' RT

11+35.00
5.00' LT

11+65.00
5.00' LT

51+00.00
5.00' LT

51+00.00
5.00' RT

10+00

11

12

13

52

10'

100' TRANSITION FROM
EXISTING WIDTH TO
10' WIDTH

END 100' TRANSITION.
BEGIN FULL 10' WIDTH
BIKE PATH. STA 11+00

STA. 11+50 TRAIL=
STA. 50+00 TRAIL
TO GRACE STREET

℄ PROPOSED GREAT WESTERN TRAIL

PROPOSED 2' AGGREGATE
SHOULDER, TYPE B, 6"

NOTE: SEE DRAINAGE SHEETS FOR
OVERHEAD UITILITY LOCATIONS.

BEGIN BRIDGE
STA. 13+55.80

CURB AND GUTTER
TYPE B-6.24, 27 FOOT

CURB AND GUTTER
TYPE B-6.24, 27 FOOT

PROPOSED GRS WALL
SEE STRUCTURAL PLANS

PORTLAND CEMENT
CONCRETE SIDEWALK, 4"
(UNDER BRIDGE)
296 SQ FT

PROPOSED STRUCTURE #022-3120

GRACE STREET R.O.W.

92'

COMBINATION CONCRETE
CURB AND GUTTER TYPE
B-6.12, 30 FOOT

PORTLAND CEMENT
CONCRETE SIDEWALK, 4"
500 SQ FT

DETECTABLE WARNINGS (TYP.)

STA. 52+72.64
END TRAIL

PROPOSED BOLLARD
INSTALLED BY OTHERS

EXIST. SIGN TO
BE RELOCATED

10'

GRACE STREET
STA. 14+03.30

202

201

GRACE STREET

COMBINATION CONCRETE CURB AND
GUTTER TYPE B-6.12, 30 FOOT

PORTLAND CEMENT
CONCRETE SIDEWALK, 4"
175 SQ FT

EXISTING CROSSWALK
SHALL BE MAINTAINED

DETECTABLE WARNINGS (TYP.)

PORTLAND CEMENT
CONCRETE SIDEWALK, 4"
(UNDER BRIDGE)
196 SQ FT

END BRIDGE
STA. 14+54.30

CURB AND GUTTER
TYPE B-6.24, 27 FOOT

CURB AND GUTTER
TYPE B-6.24, 27 FOOT

PROPOSED GRS WALL
SEE STRUCTURAL PLANS

EXIST. R.O.W.

GRACE STREET R.O.W.

MATCH LINE STA. 15+50

N

PROFILE

PROPOSED BIKE PATH PROFILE AT
PROP. BIKE PATH PGL

EXISTING GROUND PROFILE AT
PROP. BIKE PATH PGL

VPI STA. 10+09.01
ELEVATION 728.46

728.47

-0.16%

-4.29%

K = 13
120.00' V.C.

-4.29%

+5.00%

VPI STA. 11+24.88
ELEVATION 723.48

+64.88 EL. 726.06

+84.88 EL. 726.88

+33.30 EL. 732.80

K = 21
180.00' V.C.

+5.00%

-3.57%

VPI STA. 14+03.30
ELEVATION 737.40

+33.30 EL. 734.19

727.64	725.98	723.52	721.11	721.41	720.59	717.32	712.80	714.51	722.39	730.75
726.69	725.03	725.21	727.23	729.73	732.23	734.41	735.45	735.29	733.95	732.17

740 735 730 725 720 715 710

10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50

SURVEYED
PLOTTED
GRADES CHECKED
ALIGNMENT CHECKED
STRUCTURE

NOTE BOOK
NO.

DATE BY

FILE NAME = W:\756-00A_Lombard - GWT Bridges Phase II\CADD Sheets\07756004-sht-plan-f1.dgn

USER NAME = daly	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/22/2011	DATE - 10/22/2010	REVISED -	

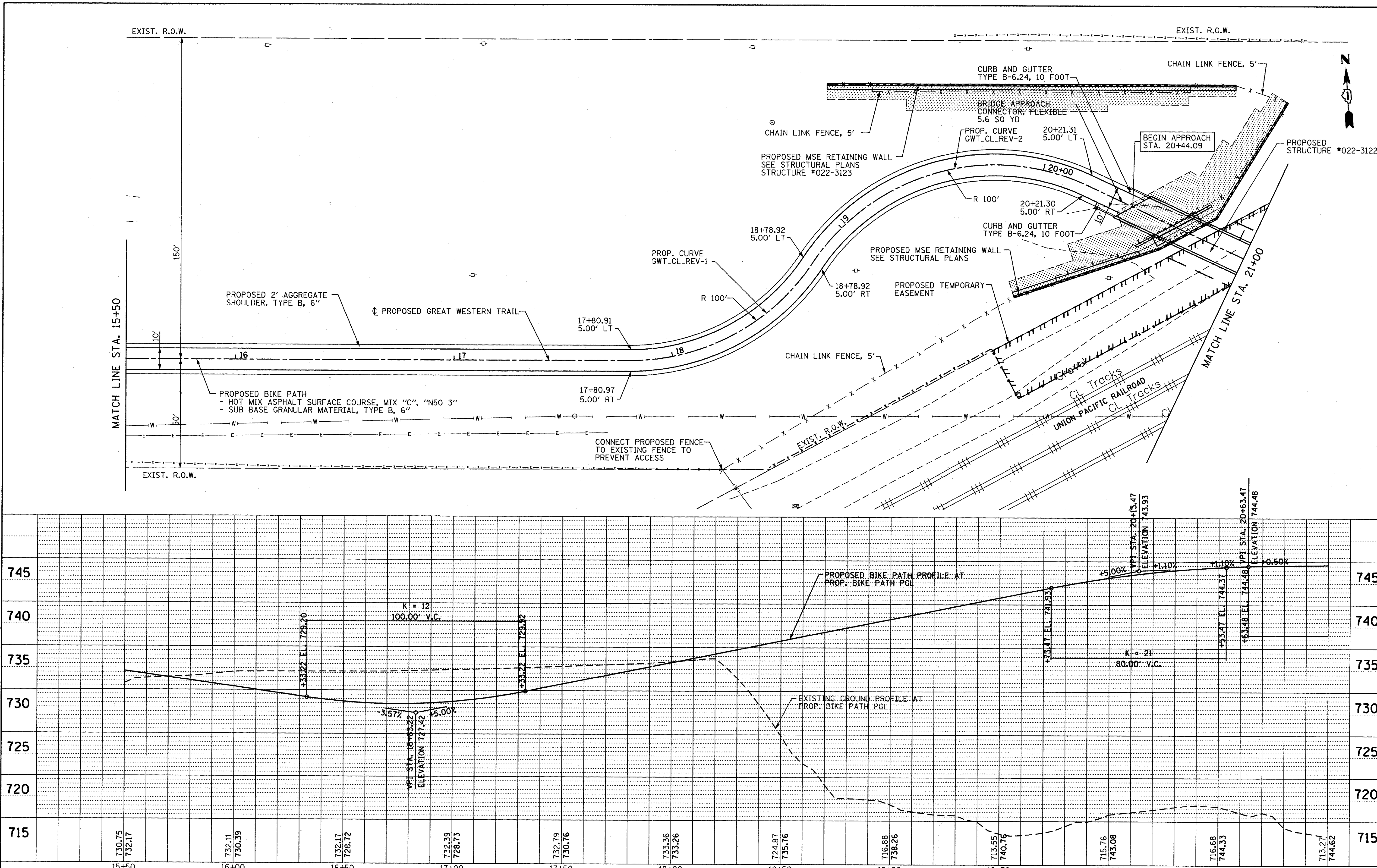
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

STATE OF ILLINOIS
GREAT WESTERN TRAIL

PLAN AND PROFILE

HORIZ. 1"=20'
SCALE: VERT. 1"=5' | SHEET NO. | SHEETS | STA. 10+00 | TO STA. 15+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	22
		CONTRACT NO. 63568		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



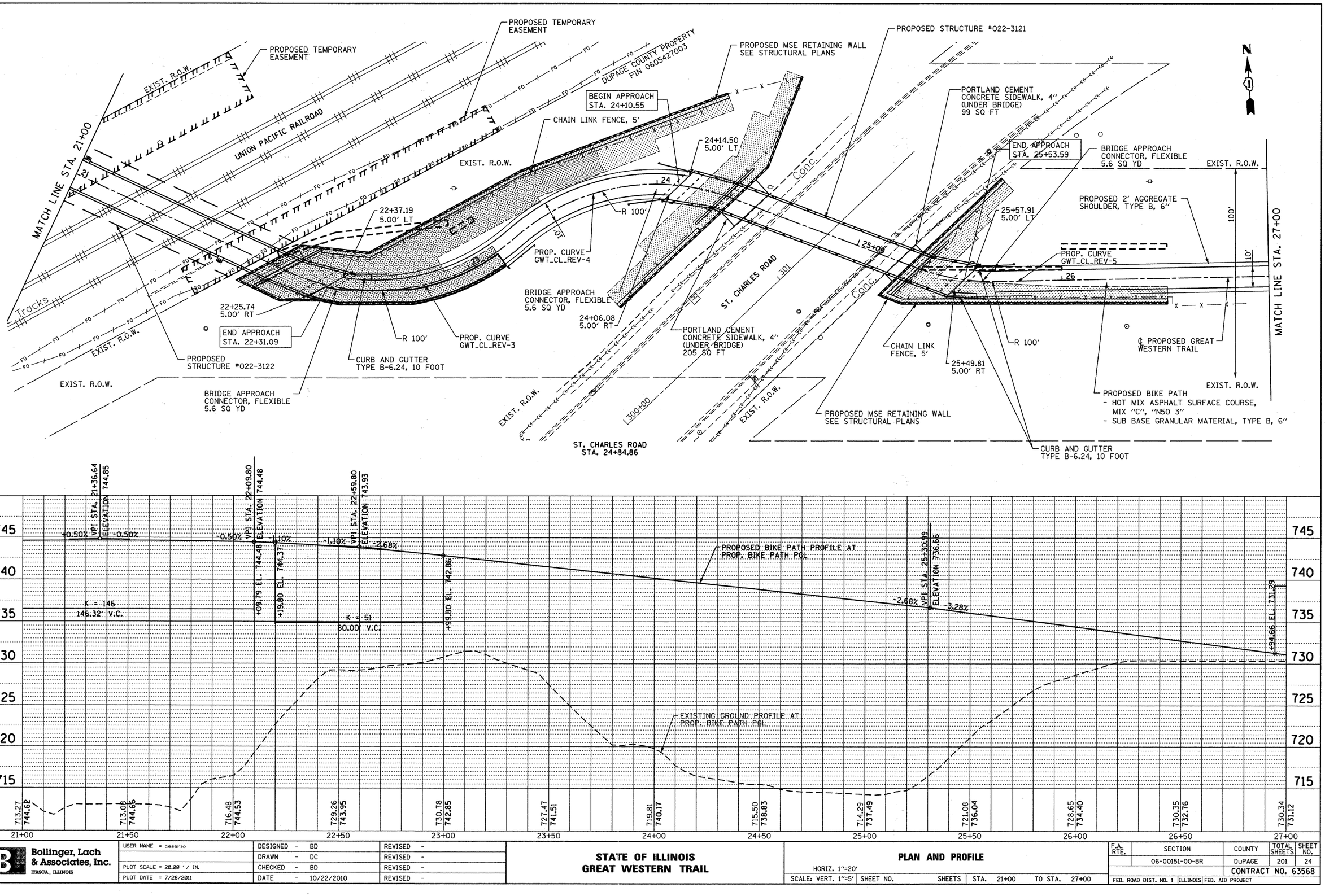
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL	PLAN AND PROFILE
	PLOT SCALE = 20.00 ' / IN.	DRAWN - DC	REVISED -		HORIZ. 1"=20'
	PLOT DATE = 7/22/2011	CHECKED - BD	REVISED -		SCALE: VERT. 1"=5' SHEET NO. SHEETS STA. 15+50 TO STA. 21+00
		DATE - 10/22/2010	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	23
		CONTRACT NO. 63568		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\0175004-sht-plnpr12.dgn

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / CADD FILE NAME — NOTE BOOK / NO.

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — NOTE BOOK / NO.



PLAN
SURVEYED
PLOTTED
CHECKED
R.O.W. CHECKED
R.P. OF WAY CHECKED
NOTE BOOK
NO.
CADD FILE NAME
BY
DATE

PROFILE
SURVEYED
PLOTTED
CHECKED
R.O.W. CHECKED
R.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-plnprf3.dgn

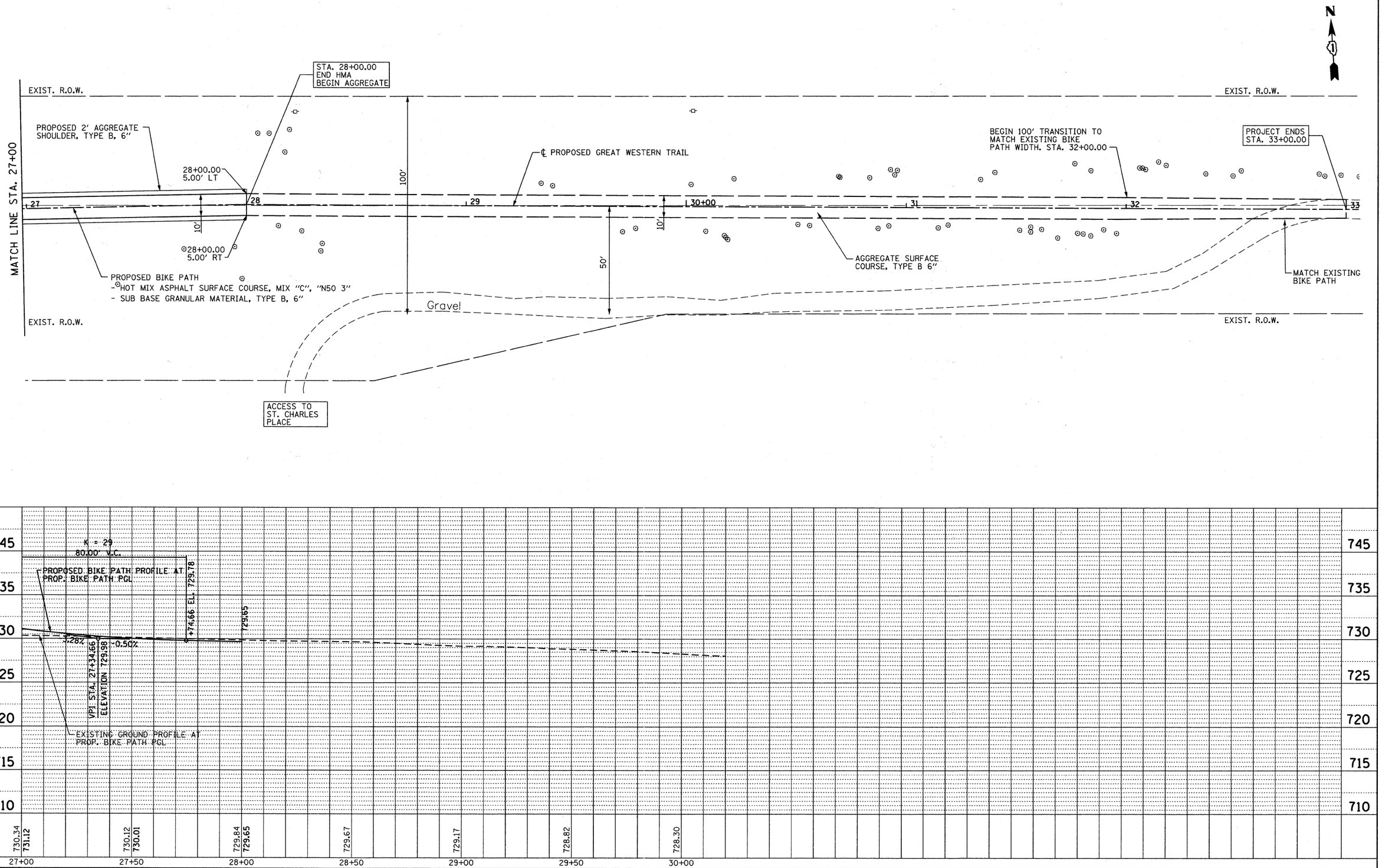
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = cesario	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/26/2011	DATE - 10/22/2010	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

PLAN AND PROFILE
HORIZ. 1"=20'
SCALE: VERT. 1"=5' | SHEET NO. | SHEETS | STA. 21+00 | TO STA. 27+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	24
		CONTRACT NO. 63568		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



PLAN

DATE	BY	
		SURVEYED
		PLOTTED
		ALIGNMENT CHECKED
		RT. OF WAY CHECKED
		CADD FILE NAME
		NOTE BOOK
		NO.

PROFILE

DATE	BY	
		SURVEYED
		PLOTTED
		PROFILE CHECKED
		B.M. NOTED
		STRUCTURE NOTATNS CHKD
		NOTE BOOK
		NO.

FILE NAME = W:\756-804_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-plnprf4.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = cesario	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/26/2011	DATE - 10/22/2010	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

PLAN AND PROFILE
HORIZ. 1"=20'
SCALE: VERT. 1"=5' | SHEET NO. | SHEETS | STA. 27+00 | TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	25
		CONTRACT NO. 63568		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIP LINE OF EXISTING TREES TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. AFTER TREES ARE SAFELY FENCED NOTHING IS TO BE STORED, DRIVEN, OR DISTURBED INSIDE THE FENCE. REMOVE PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.

2. EROSION CONTROL WORK ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODABLE CONDITIONS.

3. THE LANDSCAPING AND EROSION CONTROL MEASURES SHOWN ARE BUT A GRAPHICAL REPRESENTATION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS PLAN ARE TO BE EXPECTED PENDING A JOB SITE INSPECTION BETWEEN THE CONTRACTOR AND THE ENGINEER.

4. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, LATEST REVISION.

5. THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) AND CORPS OF ENGINEERS MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD AND CORPS OF ENGINEERS.

8. ALL EROSION CONTROL MEASURES MUST BE INSPECTED EVERY 7 DAYS AND AFTER EACH 1/2" RAIN EVENT.

9. EROSION CONTROL BLANKET AND/OR STRAW MULCH WITH NETTING (DEPENDING ON SLOPE, SLOPE LENGTH, AND FLOW RATES) SHALL BE INSTALLED ON ALL SLOPES AND IN CRITICAL AREAS (I.e. PERIMETERS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING.

10. IN AREAS WHERE WORK IS COMPLETE, PERMANENT STABILIZATION SHALL OCCUR WITHIN 7 DAYS OF COMPLETION, AND IN AREAS WHERE WORK HAS TEMPORARILY CEASED FOR 14 DAYS OR MORE, TEMPORARY STABILIZATION SHALL OCCUR BY THE 7th DAY AFTER WORK HAS CEASED.

11. FOR MORRIS POND DEWATERING, FILTER ALL WATER BY USING FILTER BAGS OR AN ALTERNATIVE MEASURE. WATER MUST HAVE SEDIMENT REMOVED BEFORE BEING ALLOWED TO FLOW INTO THE EXISTING STORM SEWER OUTLET ON THE WEST SIDE OF MORRIS POND.

12. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BY THE KDSWCD.

13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA.

14. WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL.

15. WHEN DEWATERING OF THE SITE IS REQUIRED IN ORDER TO PERFORM WORK IN MORRIS POND, THE SITE SHALL BE DEWATERED FOR WORK IN THE DRY AND DEWATERING WILL BE TEMPORARY ONLY.

SOIL EROSION AND SEDIMENTATION CONTROL SPECIFICATIONS:

1. GENERAL

A. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE PROVISIONS OF THE DUPAGE COUNTY CODE, THE ILLINOIS PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL, IEPA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL, AND ANY LOCAL, COUNTY, STATE AND/OR FEDERAL STORM WATER MANAGEMENT AND/OR SOIL EROSION AND POLLUTION CONTROL ORDINANCES.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO COMMENCMENT OF CONSTRUCTION ACTIVITES. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATION AND OR GROUND COVER HAS BEEN ESTABLISHED WITH COVERAGE OF AT LEAST 70 PERCENT.

2. IMPLEMENTATION

A. BEFORE STARTING CLEARING AND SITE GRADING WORK THROUGHOUT THE GRADING LIMITS FOR THE GREAT WESTERN TRAIL AND TWO APPROVED BORROW AREAS. STABILIZED CONSTRUCTION ENTRANCES AND SILT FENCES SHALL BE INSTALLED AS SHOWN ON THE PLANS.

B. THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE MONITORED PERIODICALLY FOR ITS EFFECTIVENESS TO COLLECT DIRT WHICH COULD LEAVE THE SITE VIA CONSTRUCTION VEHICLES. ANY DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY.

C. INLET FILTER BASKETS SHALL BE INSTALLED AND MAINTAINED IN INTAKE STRUCTURES (I.E., INLETS, CATCH BASINS).

D. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN 14 DAYS, SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED AROUND SUCH STOCKPILE. ANY PART OF THE STOCKPILE TO REMAIN UNTOUCHED FOR 21 DAYS MUST BE PROTECTED WITH TEMPORARY SOIL AND EROSION CONTROL MEASURES WITHIN 14 DAYS OF THE LAST DAY THE STOCKPILE WAS DISTURBED.

E. ANY DISTURBED AREAS SHALL BE PERMANENTLY OR TEMPORARILY PROTECTED FROM SOIL EROSION WITHIN 14 DAYS AFTER ACTIVITY HAS CEASED UNLESS ACTIVITY WILL RESUME WITHIN 21 DAYS FROM INITIAL CEASE IN ACTIVITY. TEMPORARY COVER SHALL BE MAINTAINED CONTINUOUSLY UNTIL PERMANENT COVER IS ESTABLISHED.

F. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING, INCLUDING STORM WATER RUNOFF, SHALL BE FILTERED PRIOR TO DISCHARGING TO THE STORM WATER SYSTEM.

3. MAINTENANCE AND INSPECTIONS

A. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF/OR POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN THE PLAN AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITH SEVEN (7) CALENDAR DAYS FOLLOWING THE INSPECTION.

B. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL/ENGINEER MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF INSPECTION. THE PERMITTEE SHALL COMPLETE AND SUBMIT WITHIN 24 HOURS AN INCIDENCE OF NON-COMPLIANCE OBSERVED DURING AN INSPECTION CONDUCTED. SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NON-COMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NON-COMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NON-COMPLIANCE. AN INCIDENCE OF NON-COMPLIENCE IS DEFINED AS ANY NOTICEABLE DISCHARGE OF ANY SEDIMENT LEAVING THE SITE.

4. TYPICAL CONSTRUCTION SEQUENCING:

1. INSTALL SOIL EROSION AND SEDIMENT CONTROL (SE/SC) MEASURES
   - A. SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION
   - B. SILT FENCE INSTALLATION
   - C. CONSTRUCTION FENCING AROUND AREAS NOT TO BE DISTURBED
   - D. STABILIZED CONSTRUCTION ENTRANCES
2. TREE REMOVAL WHERE NECESSARY (CLEAR AND GRUB)
3. CONSTRUCT SEDIMENT TRAPPING DEVICES (SEDIMENT TRAPS, BASINS, ETC.)
4. DEWATER THE WORK AREA
5. CREATE/MAINTAIN DEWATER OPERATION
6. CONSTRUCT STABILIZED ROADWAY INTO WORK AREA
7. STRIP TOPSOIL, STOCKPILE TOPSOIL AND GRADE SITE
8. TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE)
9. INSTALL STORM SEWER AND ASSOCIATED INLET & OUTLET PROTECTION
10. INSTALL BRIDGES AND BIKE PATHS
11. PERMANENTLY STABILIZE PROJECT LIMITS.
12. INSTALL STRUCTURES AND GRADE INDIVIDUAL LOTS
13. PERMANENTLY STABILIZE LOTS
14. REMOVE ALL TEMPORARY SE/SC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION

NOTE: SOIL EROSION AND SEDIMENT CONTROL INSPECTIONS MUST OCCUR EVERY SEVEN CALENDAR DAYS AND AFTER EVERY 1/2" OR GREATER RAINFALL EVENT.

SOIL PROTECTION CHART

STABLIIZATION CHART	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDINGS			A→			*	*		*			
DORMANT SEEDINGS	B→									B→		
TEMPORARY SEEDINGS			C→				D→					
SODDING			E**									
MULCHING	F→											

A – REFER TO LANDSCAPE PLANS FOR PERMANENT SEED MIXTURES AND LOCATIONS

B – KENTUCKY BLUEGRASS 135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. AND 2 TONS STRAW MULCH PER ACRE

C – SPRING OATS 100 LBS./AC.

D – WHEAT OR CEREAL RYE 150 LBS./AC.

E – SOD (NURSERY GROWN KENTUCKY BLUEGRASS)

F – EROSION CONTROL BLANKET (SPECIAL 1)

* IRRIGATE AS NECESSARY

** IRRIGATION AS NECESSARY TO ESTABLISH SOD

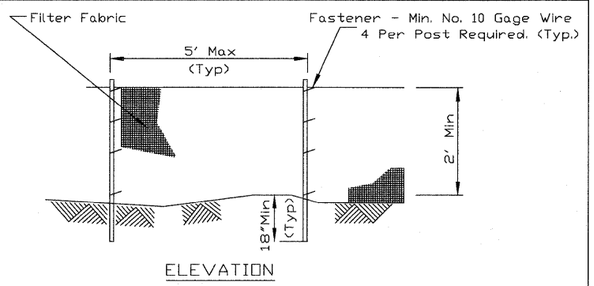
FILE NAME = W:\796-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-erosionnotes1.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED - PER IDOT 07/29/10	STATE OF ILLINOIS GREAT WESTERN TRAIL	EROSION AND SEDIMENT CONTROL NOTES
		DRAWN - DC	REVISED - PER IDOT 08/19/10		
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - BD	REVISED -		SCALE: NTS | SHEET NO. | SHEETS | STA. | TO STA.
	PLOT DATE = 7/22/2011	DATE -	REVISED -		

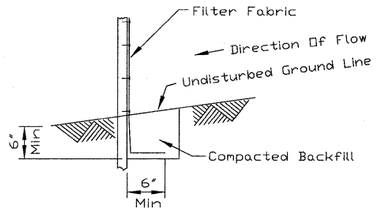
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	26
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMNT
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X	TS	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X	
	PERMANENT SEEDING	X	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION. FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X
	DORMANT SEEDING		DS	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.	X	X
	SODDING		SO	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.	X	X
	GROUND COVER		GC	PROVIDES GROUND COVER, SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		X
NON VEGETATIVE SOIL COVER	MULCHING		M	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X
	AGGREGATE COVER		AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.	X	X
	PAVING		P	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
DIVERSIONS	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.	X	X
	CHANNEL DIVERSION		CD	TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.	X	X
	COMBINATION DIVERSION		DC	TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.	X	X
	CURB AND GUTTER		CG	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		X
	BENCHES		B	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.	X	X
WATERWAYS	BARE CHANNEL		BC	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.	X	
	VEGETATIVE CHANNEL		VC	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.	X	X
	LINED CHANNEL		LC	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X
ENCLOSED DRAINAGE	STORM SEWER		ST	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X
	UNDERDRAIN		UD	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.	X	X
SPILLWAYS	STRAIGHT PIPE SPILLWAY		SS	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER.		X
	DROP INLET PIPE SPILLWAY		DIS	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		X
	WEIR SPILLWAY		W	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.	X	X
	BOX INLET WEIR SPILLWAY		BS	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.	X	X
OUTLETS	LINED APRON		LA	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.	X	X
SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN		ES	USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.	X	X
	EXCAVATED SEDIMENT BASIN		XS	USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.	X	X
	COMBINATION SEDIMENT BASIN		CS	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.	X	X
SEDIMENT FILTERS	BARRIER FILTER		BF (C)	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN ½ ACRE TO FILTER SEDIMENT FROM RUNOFF.	X	
	VEGETATIVE FILTER		VF	USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.	X	X
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE	X	SE	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.	X	X
	DUST AND TRAFFIC CONTROL		DT	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	X	X

SILT FENCE PLAN



ELEVATION

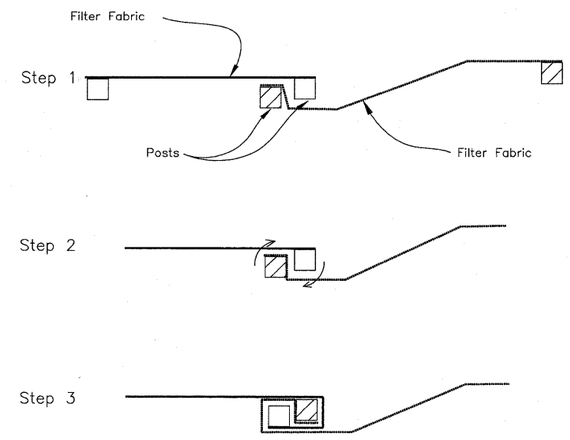


FABRIC ANCHOR DETAIL

NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 50 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE		STANDARD DWG. NO.
Project		IL-620
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 1 OF 2
Checked ____ Date ____		DATE 11-20-01
Approved ____ Date ____		

SILT FENCE



ATTACHING TWO SILT FENCES

NOTES:
1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Drive both posts a minimum of 18 inches into the ground and bury the flap.

REFERENCE		STANDARD DWG. NO.
Project		IL-620(W)
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 2 OF 2
Checked ____ Date ____		DATE 1-29-99
Approved ____ Date ____		

* A DOUBLE ROW OF SILT FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE CONSTRUCTION SITE.

SOIL PROTECTION CHART

STABLIIZATION CHART	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDINGS			A			*	*		*			
DORMANT SEEDINGS	B		►							B	►	
TEMPORARY SEEDINGS			C			►	D		►			
SODDING			E**						►			
MULCHING	F	►										

A – REFER TO LANDSCAPE PLANS FOR PERMANENT SEED MIXTURES AND LOCATIONS

B – KENTUCKY BLUEGRASS 135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. AND 2 TONS STRAW MULCH PER ACRE

C – SPRING OATS 100 LBS./AC.

D – WHEAT OR CEREAL RYE 150 LBS./AC.

E – SOD (NURSERY GROWN KENTUCKY BLUEGRASS)

F – EROSION CONTROL BLANKET (SPECIAL 1)

* IRRIGATE AS NECESSARY

** IRRIGATION AS NECESSARY TO ESTABLISH SOD

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-erosioncntl.dgn

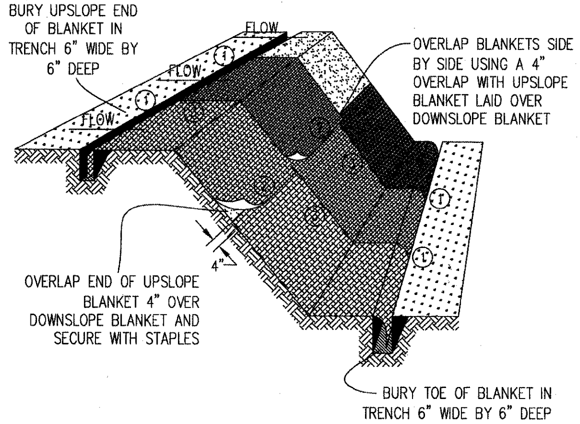
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.0000 '/ IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/22/2011	DATE -	REVISED -

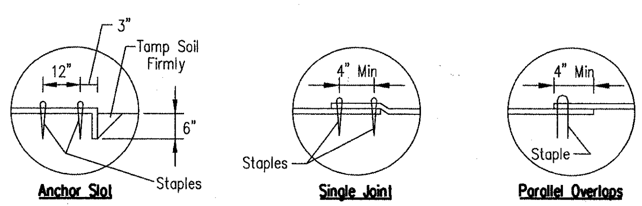
STATE OF ILLINOIS
GREAT WESTERN TRAIL

EROSION AND SEDIMENT CONTROL DETAILS

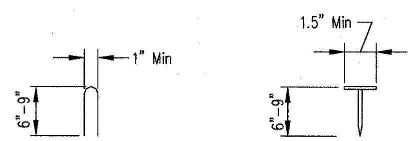
SCALE: NTS | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	27
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		





DETAIL 1 **DETAIL 2** **DETAIL 3**



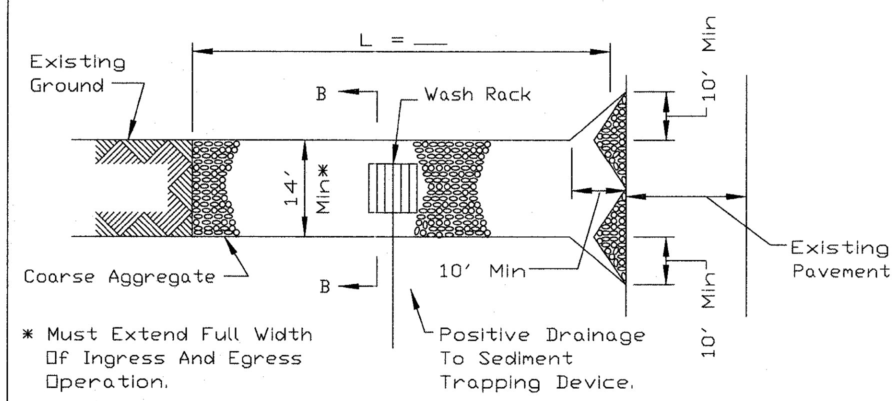
STAPLE DETAIL **PUSH PIN DETAIL**

NOTES:

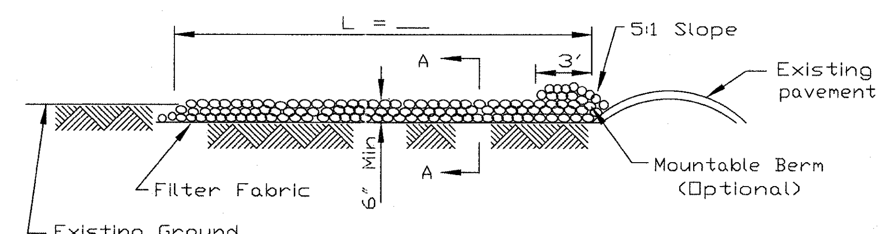
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 stapels with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

Sheet 1 of 1	File No. Drawing No. ILM-530	EROSION CONTROL BLANKET INSTALLATION DETAILS	Designed	Drawn B. JOHNSON	Date 11/08	Checked	Approved

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



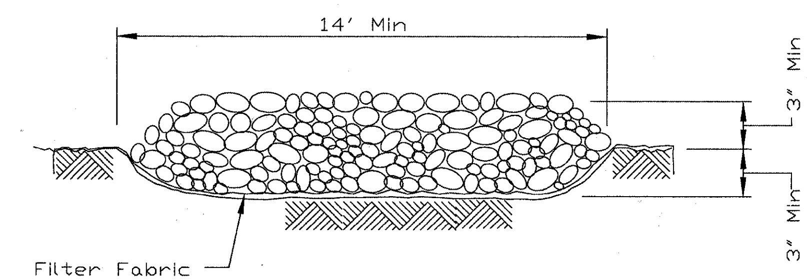
SIDE ELEVATION

NOTES:

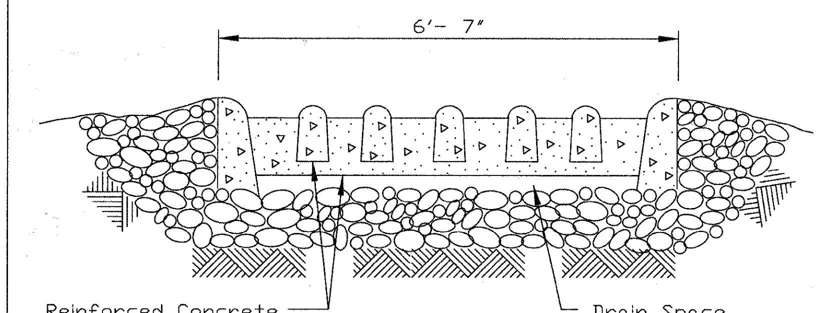
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE		STANDARD DWG. NO.
Project ___	NRCS Natural Resources Conservation Service	IL-630
Designed ___ Date ___		SHEET 1 OF 2
Checked ___ Date ___		DATE 8-18-94
Approved ___ Date ___		

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A

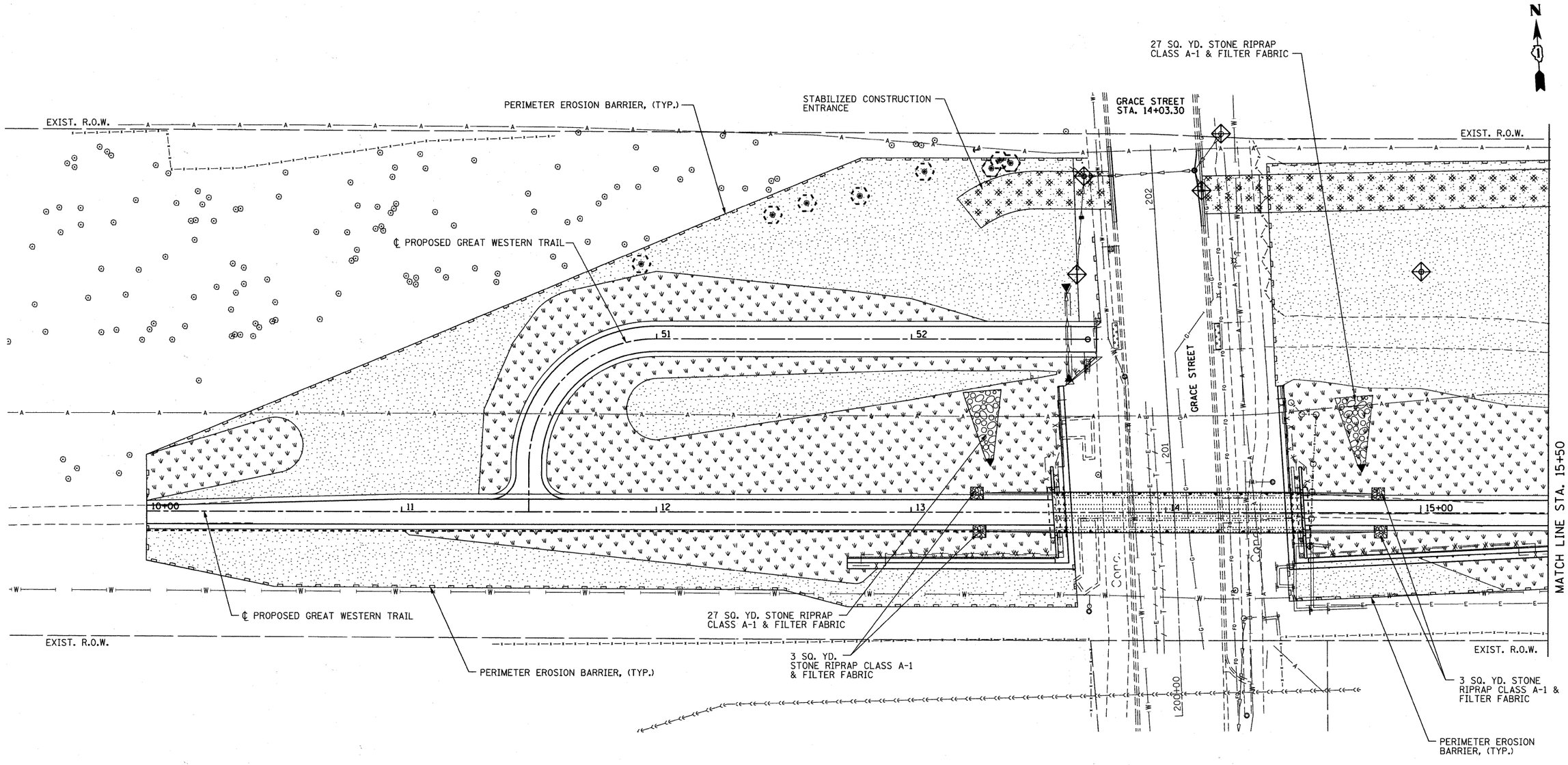


SECTION B-B

REFERENCE		STANDARD DWG. NO.
Project ___	NRCS Natural Resources Conservation Service	IL-630
Designed ___ Date ___		SHEET 2 OF 2
Checked ___ Date ___		DATE 8-18-94
Approved ___ Date ___		

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-erosiondet2.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL	EROSION AND SEDIMENT CONTROL DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - DC	REVISED -				06-00151-00-BR	DuPAGE	201	28
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - BD	REVISED -				CONTRACT NO. 63568			
	PLOT DATE = 7/22/2011	DATE -	REVISED -		SCALE: NTS / SHEET NO. / SHEETS / STA. / TO STA.		ILLINOIS FED. AID PROJECT			



LEGEND

- FURNISH AND PLACE 4" TOPSOIL SEEDING CLASS 2
- SEEDING CLASS 4 AND HEAVY DUTY EROSION CONTROL BLANKET
- INLET FILTERS
- PERIMETER EROSION BARRIER
- TREE TRUNK PROTECTION
- CLASS A-1 RIPRAP & FILTER FABRIC

AREA OF DISTURBANCE = 1.48 AC

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-erosonpln1.dgn

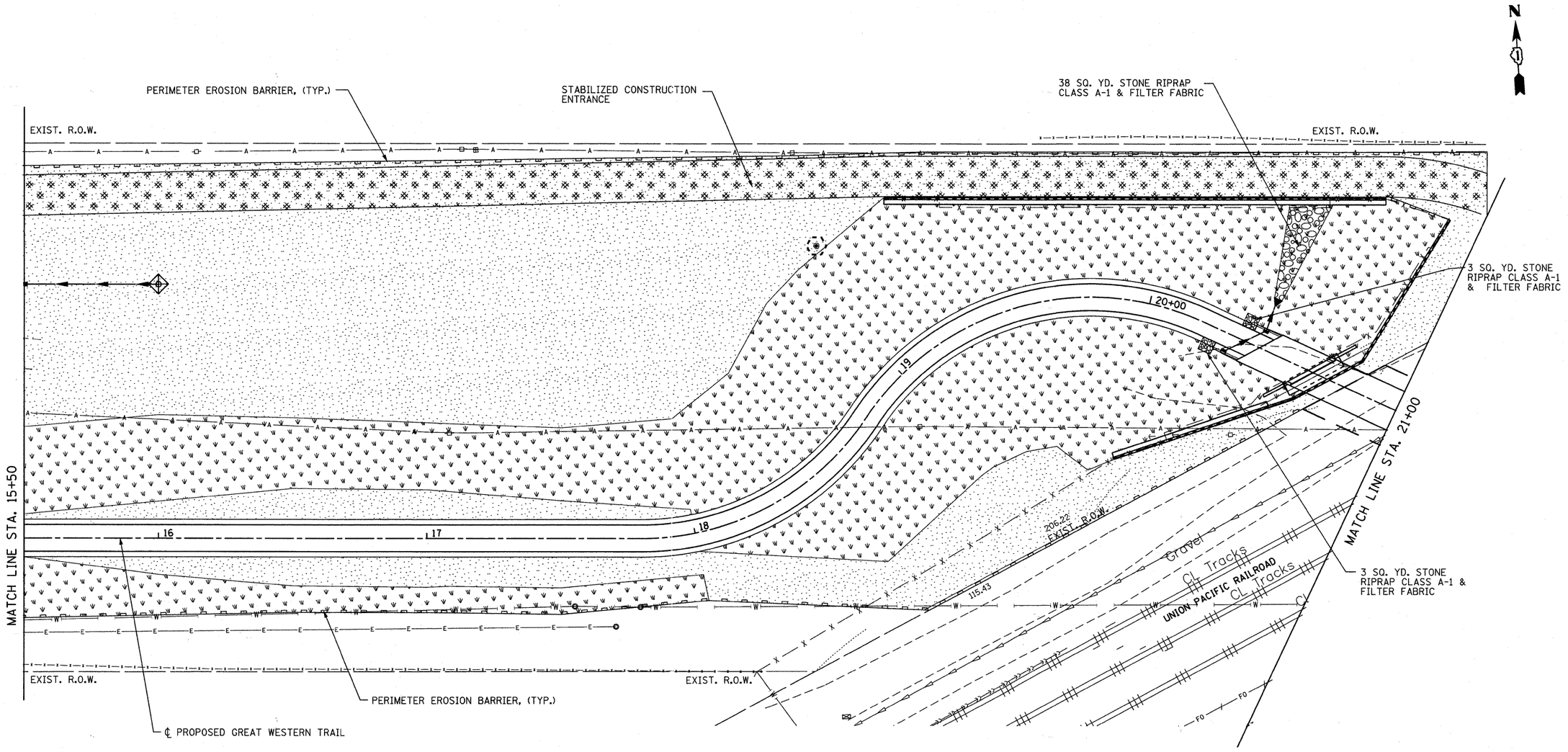
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EROSION CONTROL AND LANDSCAPING

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 10+00 | TO STA. 15+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	29
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		



AREA OF DISTURBANCE = 1.85 AC

LEGEND

- FURNISH AND PLACE 4" TOPSOIL SEEDING CLASS 2
- SEEDING CLASS 4 AND HEAVY DUTY EROSION CONTROL BLANKET
- INLET FILTERS
- PERIMETER EROSION BARRIER
- TREE TRUNK PROTECTION
- CLASS A-1 RIPRAP & FILTER FABRIC

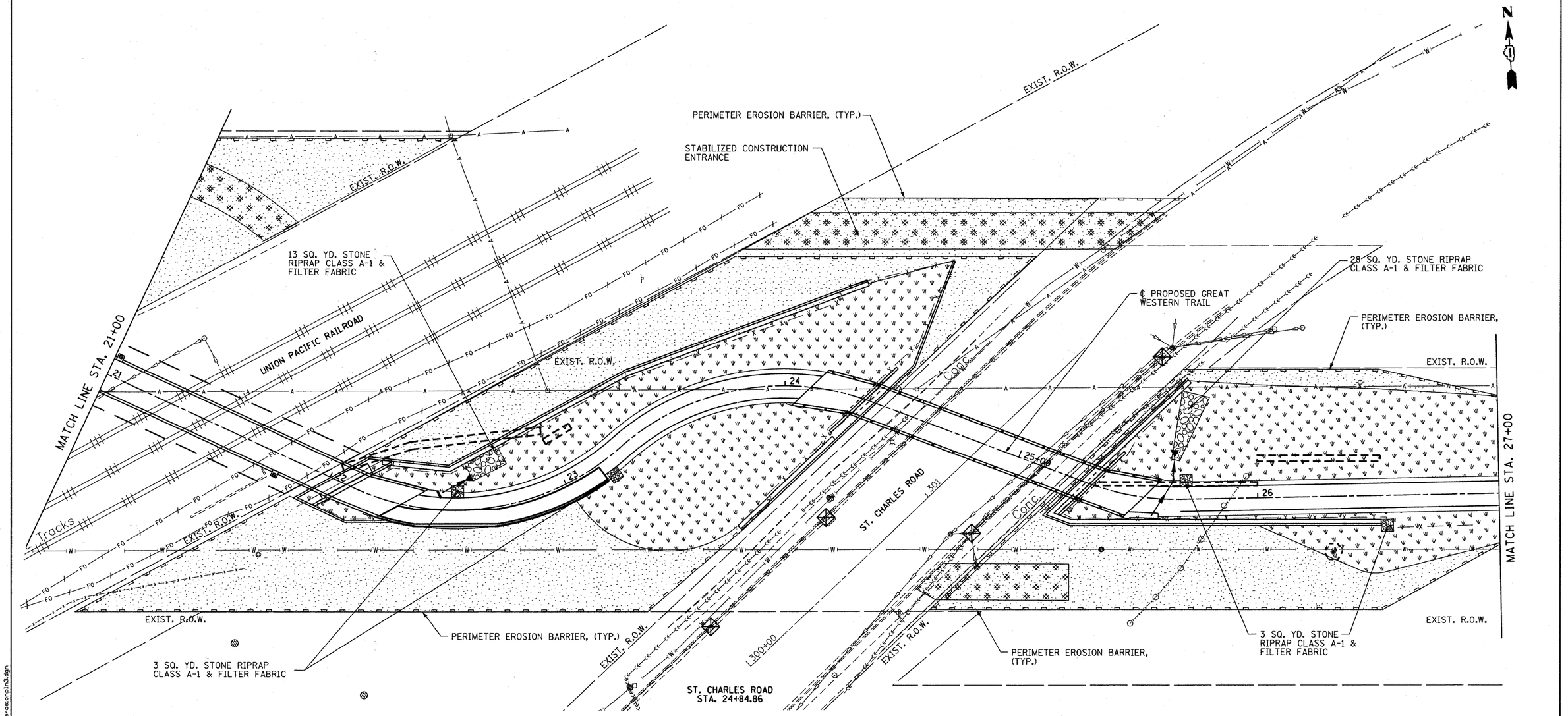
FILE NAME = W:\756-004.Lombard - GWT Bridges Phase II\CADD Sheets\DI756004-sht-erosionpln2.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -	**STATE OF ILLINOIS GREAT WESTERN TRAIL**
		DRAWN - DC	REVISED -	
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -	
	PLOT DATE = 7/22/2011	DATE -	REVISED -	

EROSION CONTROL AND LANDSCAPING

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 15+50 | TO STA. 21+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	30
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



LEGEND

- FURNISH AND PLACE 4" TOPSOIL SEEDING CLASS 2
- SEEDING CLASS 4 AND HEAVY DUTY EROSION CONTROL BLANKET
- INLET FILTERS
- PERIMETER EROSION BARRIER
- TREE TRUNK PROTECTION
- CLASS A-1 RIPRAP & FILTER FABRIC

AREA OF DISTURBANCE = 1.13 AC

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-ent-erosionpln3.dgn

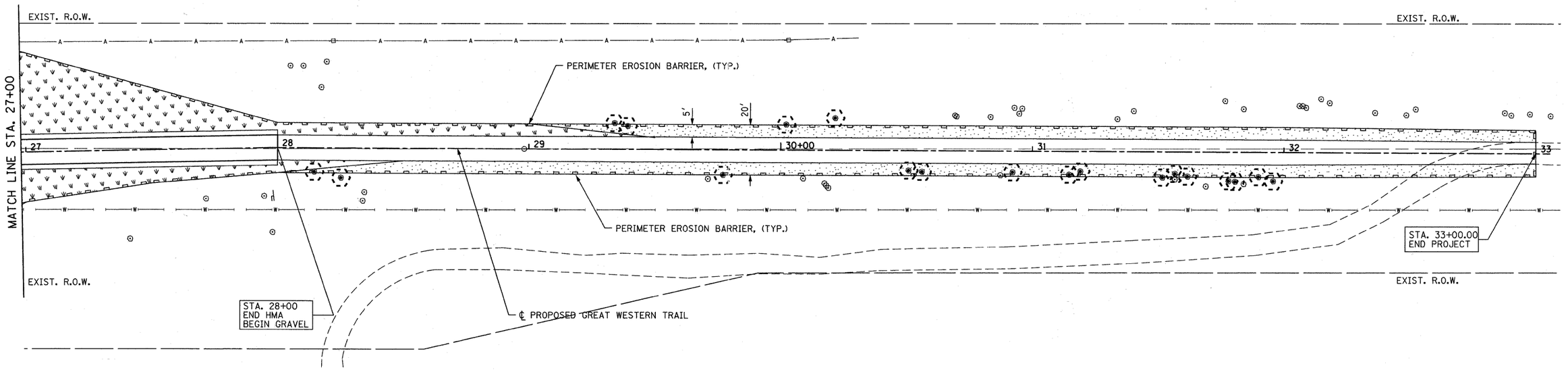
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EROSION CONTROL AND LANDSCAPING

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 21+00 | TO STA. 27+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	31
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



AREA OF DISTURBANCE = 0.32 AC

LEGEND

- FURNISH AND PLACE 4" TOPSOIL SEEDING CLASS 2
- SEEDING CLASS 4 AND HEAVY DUTY EROSION CONTROL BLANKET
- INLET FILTERS
- PERIMETER EROSION BARRIER
- TREE TRUNK PROTECTION
- CLASS A-1 RIPRAP & FILTER FABRIC

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-erosionpln1.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

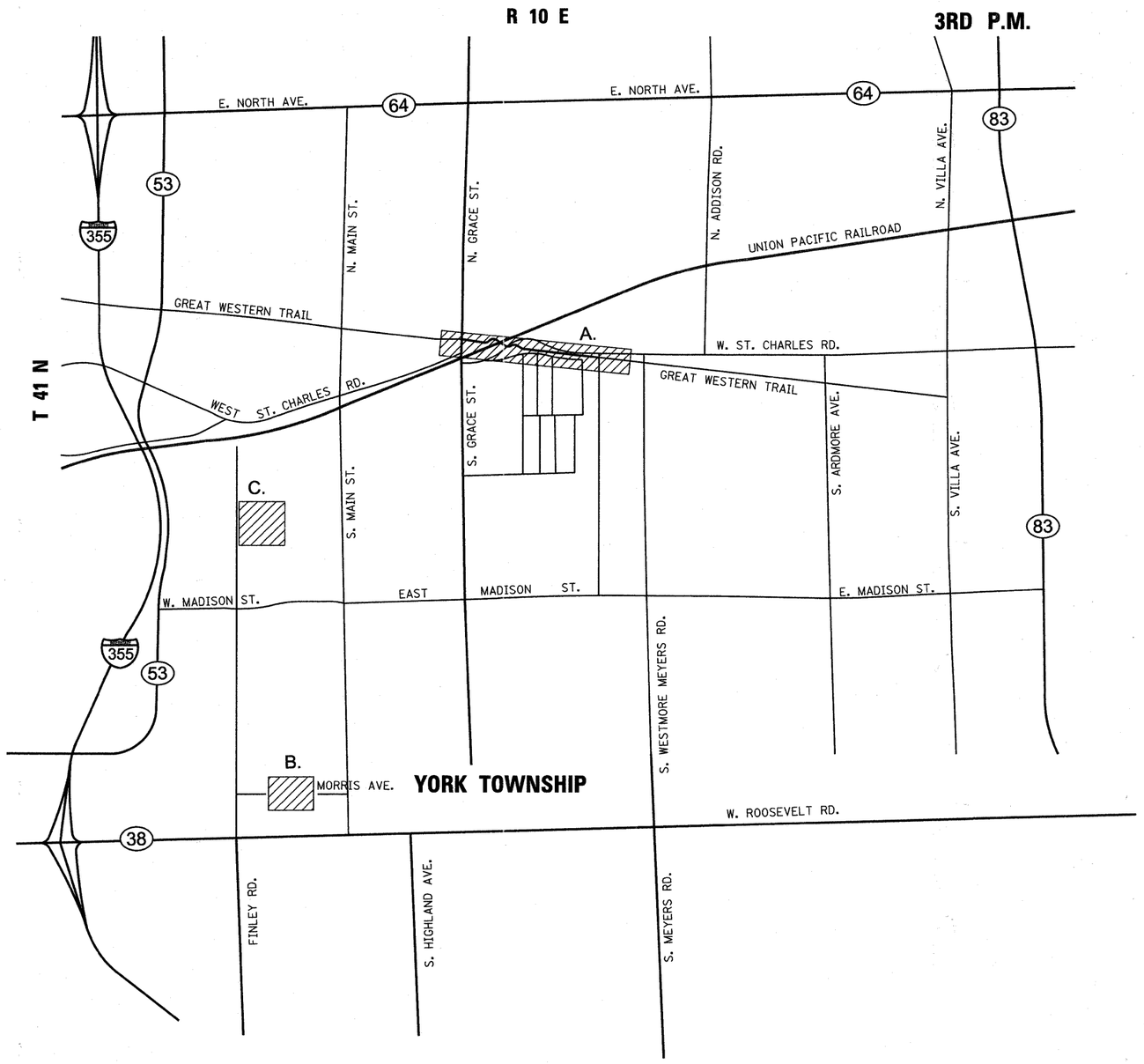
USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

EROSION CONTROL AND LANDSCAPING

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 27+00 | TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	32
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		



N

1

LOCATION MAP
NOT TO SCALE

A. GREAT WESTERN TRAIL

B. MORRIS AVENUE BORROW AREA, D=2.31 MILES

C. FINLEY ROAD BORROW AREA, D=1.72 MILES

(D=DISTANCE FROM BORROW SITE TO PROJECT)

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\DI756004-aht-Pond location_map.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

APPROVED BORROW AREA LOCATION MAP

SCALE: NONE	SHEET NO.	SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	33
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		

BORING LOG

CLIENT: **Village of Lombard**
ARCHITECT:
PROJECT: **Proposed GWT Bridges Borrow Material Sources, Morris Pond Site**
LOCATION: **Lombard, Illinois**

BORING NUMBER **B-1**
APPROX. SURFACE ELEVATION (C.C.D.) + -
NORTH | EAST
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)
PL ▲ MC × LL ▲
STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
		HS				
	1	SS	63			CA Standard Proctor Test
2.5		HS				
5.0	2	SS	63			
	3	SS	75			CA, Standard Proctor Test
7.5						
10.0						
12.5						

13" CLAY TOPSOIL, Black (OL)

LEAN CLAY with Sand, Brownish Gray, Very Stiff (CL)

LEAN CLAY, Gray, Trace Sand, Stiff to Very Stiff (CL)

End of Boring @ 8.0 Feet

Notes: 1. Upper 9" of soils were frozen at the time the soil boring was drilled and sampled.
2. Two bucket samples were obtained from the depths of 1'-4' and 4'-8' from auger cuttings by auger drilling adjacent to the boring B-1. Atterberg Limit Tests and Combined Mechanical Analysis tests were performed on bucket samples.
CA = Combined Mechanical Analysis

Θ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc. 7350 Dovan Drive, Tinley Park, IL 60477					
Dry WS/WD	Dry ACR						
		Approved By	JD	Job No.	9957G	Drawn By	AR

Boring Started	1/27/11		
Boring Completed	1/27/11		
Driller	DM	Rig	BK-51
Sheet	1 of 1		

BORING LOG

CLIENT: **Village of Lombard**
ARCHITECT:
PROJECT: **Proposed GWT Bridges Borrow Material Sources, Morris Pond Site**
LOCATION: **Lombard, Illinois**

BORING NUMBER **B-2**
APPROX. SURFACE ELEVATION (C.C.D.) + -
NORTH | EAST
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)
PL ▲ MC × LL ▲
STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
		HS				
	1A					
	1B	SS	67			
2.5	1C					
		HS				
5.0	2	SS	71			
	3	SS	92			
7.5						
10.0						
12.5						

FILL: CLAY TOPSOIL, Black (OH)

ORGANIC CLAY, Dark Brown and Gray, Trace Sand and Gravel, Medium, Wet (OL)

LEAN CLAY with Sand, Brownish Gray, Trace Gravel, Stiff, Moist (CL)

LEAN CLAY, Gray, Trace Sand and Gravel, Stiff, Moist (CL)

End of Boring @ 8.0 Feet

Note: Upper 9" of soils were frozen at the time the soil boring was drilled and sampled.

63.9
O.C. = 16.03%

Θ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc. 7350 Dovan Drive, Tinley Park, IL 60477					
Dry WS/WD	Dry ACR						
		Approved By	JD	Job No.	9957G	Drawn By	AR

Boring Started	1/27/11		
Boring Completed	1/27/11		
Driller	DM	Rig	BK-51
Sheet	1 of 1		

BORING LOG

CLIENT: **Village of Lombard**
ARCHITECT:
PROJECT: **Proposed GWT Bridges Borrow Material Sources, Morris Pond Site**
LOCATION: **Lombard, Illinois**

BORING NUMBER **B-3**
APPROX. SURFACE ELEVATION (C.C.D.) + -
NORTH | EAST
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)
PL ▲ MC × LL ▲
STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
		HS				
	1A					
		SS	58			
2.5	1B					
		HS				
5.0	2	SS	50			
	3	SS	88			
7.5						
10.0						
12.5						

12" CLAY TOPSOIL, Black and Dark Brown (OL)

LEAN CLAY with Sand, Brownish Gray, Trace Gravel, Hard, Moist (CL)

LEAN CLAY, Gray, Trace Sand and Gravel, Very Stiff to Stiff, Moist (CL)

End of Boring @ 8.0 Feet

Note: Upper 9" of soils were frozen at the time the soil boring was drilled and sampled.

Θ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc. 7350 Dovan Drive, Tinley Park, IL 60477					
Dry WS/WD	Dry ACR						
		Approved By	JD	Job No.	9957G	Drawn By	AR

Boring Started	1/27/11		
Boring Completed	1/27/11		
Driller	DM	Rig	BK-51
Sheet	1 of 1		

BORING LOG

CLIENT: **Village of Lombard**
ARCHITECT:
PROJECT: **Proposed GWT Bridges Borrow Material Sources, Finley Road Pond Site**
LOCATION: **Lombard, Illinois**

BORING NUMBER **B-4**
APPROX. SURFACE ELEVATION (C.C.D.) + -
NORTH | EAST
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)
PL ▲ MC × LL ▲
STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
	1A	SS	63			
	1B					
2.5	2	SS	58			CA Standard Proctor Test
5.0	3	SS	75			
7.5						
10.0						
12.5						

18" CLAY TOPSOIL, Black and Dark Brown (OL)

LEAN CLAY with Sand, Brown and Gray, Trace Gravel, Stiff to Hard, Moist (CL)

End of Boring @ 6.0 Feet

Note 3: Upper 15" of soils were frozen at the time the soil boring was drilled and sampled.
CA = Combined Mechanical Analysis
2. One bucket sample was obtained from the depth of 1.5'-6' from auger cuttings by auger drilling adjacent to the boring B-1. Atterberg Limit Tests and Combined Mechanical Analysis tests were performed on bucket sample.

Θ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc. 7350 Dovan Drive, Tinley Park, IL 60477					
Dry WS/WD	Dry ACR						
		Approved By	JD	Job No.	9957G	Drawn By	AR

Boring Started	1/27/11		
Boring Completed	1/27/11		
Driller	DM	Rig	BK-51
Sheet	1 of 1		

BORING LOG

CLIENT: **Village of Lombard**
ARCHITECT:
PROJECT: **Proposed GWT Bridges Borrow Material Sources, Finley Road Pond Site**
LOCATION: **Lombard, Illinois**

BORING NUMBER **B-5**
APPROX. SURFACE ELEVATION (C.C.D.) + -
NORTH | EAST
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)
PL ▲ MC × LL ▲
STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
	1	SS	54			
2.5	2A	SS	63			O.C. = 2.61%
	2B					
5.0	3	SS	58			
7.5						
10.0						
12.5						

24" FILL: CLAY SILT TOPSOIL, Black, Some Sand and Little Gravel, Moist (OL)

12" CLAY TOPSOIL, Black and Dark Brown, Very Stiff, Moist (OL)

LEAN CLAY with Sand, Brown and Gray, Very Stiff, Moist (CL)

LEAN CLAY with Sand, Brown, Gray and Dark Gray, Trace Gravel, Stiff, Moist (CL)

End of Boring @ 6.0 Feet

Note: Upper 15" of soils were frozen at the time the soil boring was drilled and sampled.

Θ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc. 7350 Dovan Drive, Tinley Park, IL 60477					
Dry WS/WD	Dry ACR						
		Approved By	JD	Job No.	9957G	Drawn By	AR

Boring Started	1/27/11		
Boring Completed	1/27/11		
Driller	DM	Rig	BK-51
Sheet	1 of 1		

BORING LOG

CLIENT: **Village of Lombard**
ARCHITECT:
PROJECT: **Proposed GWT Bridges Borrow Material Sources, Finley Road Pond Site**
LOCATION: **Lombard, Illinois**

BORING NUMBER **B-6**
APPROX. SURFACE ELEVATION (C.C.D.) + -
NORTH | EAST
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)
PL ▲ MC × LL ▲
STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
	1A	SS	50			
	1B					
2.5	2	SS	50			O.C. = 6.85 %
5.0	3	SS	25			
7.5						
10.0						
12.5						

FILL: SAND & GRAVEL, Brown and Gray

FILL: CLAY TOPSOIL, Black and Dark Brown, Very Stiff, Moist to Wet (OL)

LEAN CLAY with Sand, Brown and Gray, Stiff, Moist (CL)

End of Boring @ 6.0 Feet

Note: Upper 15" of soils were frozen at the time the soil boring was drilled and sampled.

Θ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc. 7350 Dovan Drive, Tinley Park, IL 60477					
Dry WS/WD	Dry ACR						
		Approved By	JD	Job No.	9957G	Drawn By	AR

Boring Started	1/27/11		
Boring Completed	1/27/11		
Driller	DM	Rig	BK-51
Sheet	1 of 1		

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-soil_borings.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

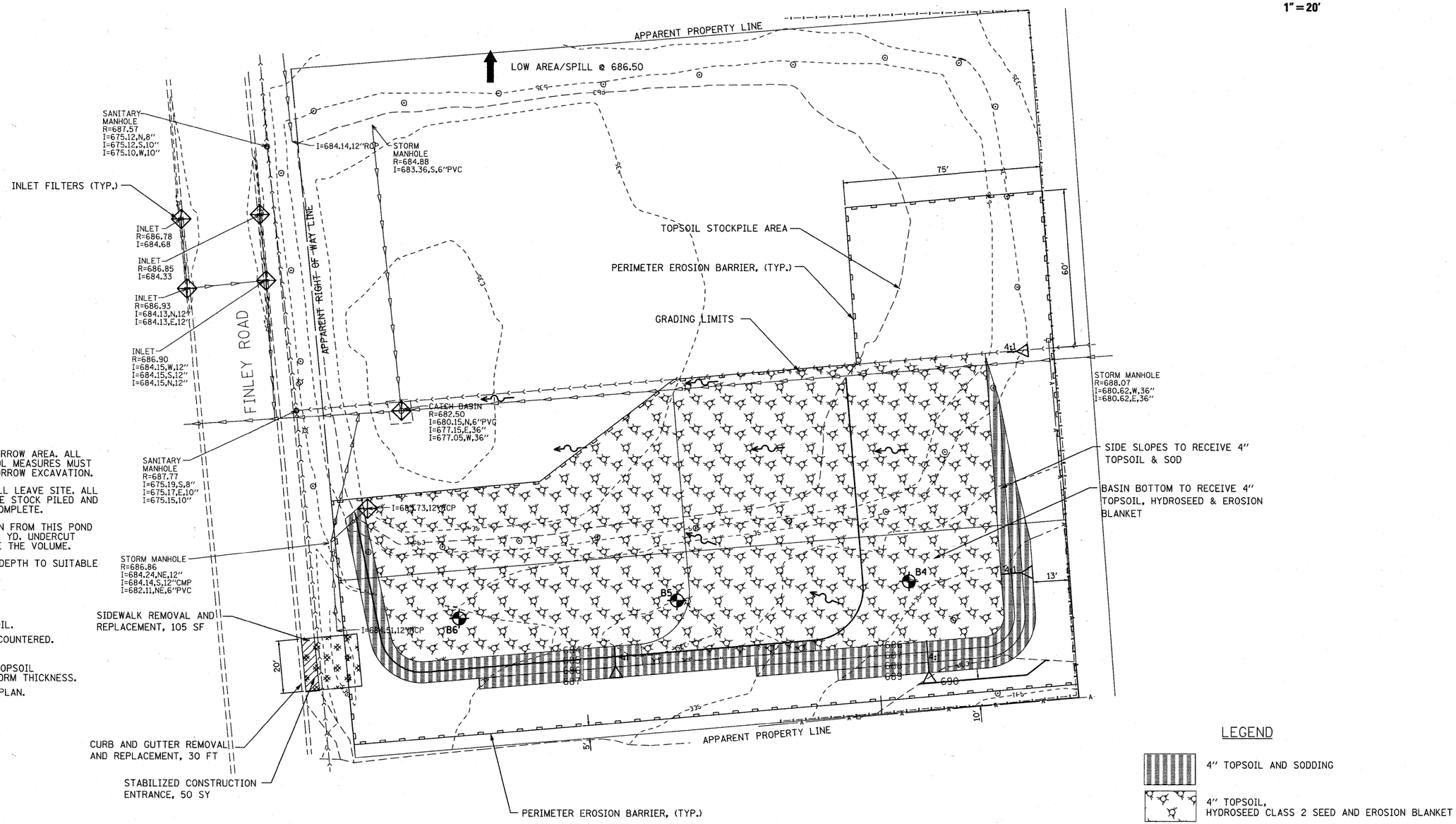
USER NAME = daly	DESIGNED - BD	REVISED -	
	DRAWN - DC	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	CHECKED - BD	REVISED -	
PLOT DATE = 7/22/2011	DATE -	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL

SOIL BORINGS FOR APPROVED BORROW AREAS

SCALE: NONE | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	34
		CONTRACT NO. 63568		
		ILLINOIS	FED. AID PROJECT	



GENERAL NOTES:

1. THIS POND IS AN APPROVED BORROW AREA. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INCORPORATED PRIOR TO BORROW EXCAVATION.
2. ONLY BORROW EXCAVATION SHALL LEAVE SITE. ALL UNSUITABLE MATERIAL SHALL BE STOCK PILED AND RESPREAD AFTER BORROW EX COMPLETE.
3. VOLUME OF BORROW EXCAVATION FROM THIS POND PER GRADING PLAN IS 1,650 CU YD. UNDERCUT MAY BE NECESSARY TO ACHIEVE THE VOLUME.
4. SEE SOIL BORINGS SHEET FOR DEPTH TO SUITABLE MATERIAL.

* SEQUENCE:

A. STRIP AND STOCK PILE TOPSOIL.
B. STOCKPILE UNSUITABLE IF ENCOUNTERED.
C. REMOVE BORROW EXCAVATION.
D. GRADE SITE PER PLAN WITH TOPSOIL RESPREAD OVER SITE IN UNIFORM THICKNESS.
E. SEED AND SOD AS SHOWN ON PLAN.

LEGEND

- 4" TOPSOIL AND SODDING
- 4" TOPSOIL, HYDROSEED CLASS 2 SEED AND EROSION BLANKET
- INLET FILTERS
- PERIMETER EROSION BARRIER

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-Finley Road ESCP.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

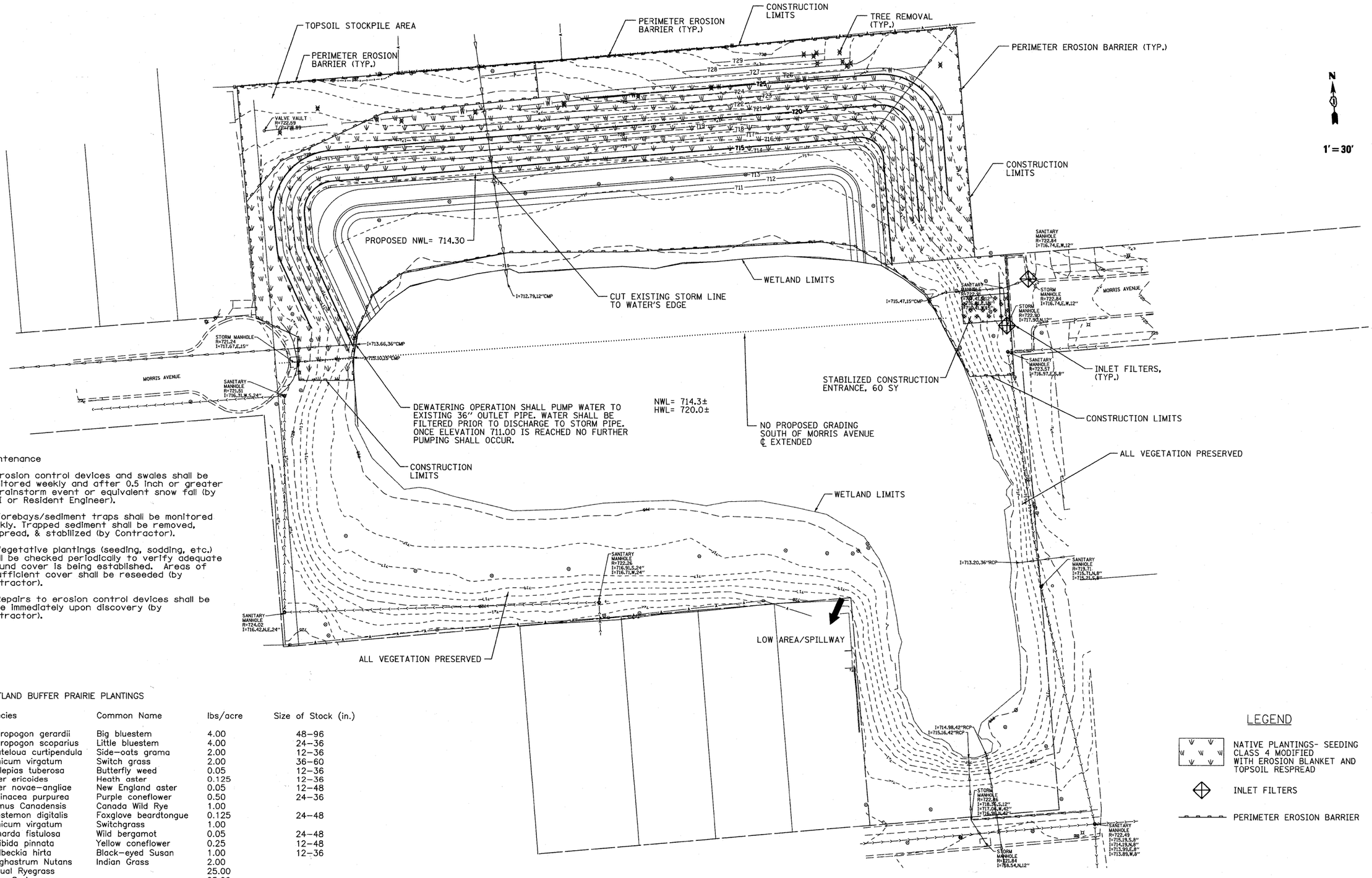
USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

FINLEY ROAD BORROW AREA
GRADING, EROSION CONTROL, & LANDSCAPE PLAN

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	35
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



Maintenance

1. Erosion control devices and swales shall be monitored weekly and after 0.5 inch or greater of rainstorm event or equivalent snow fall (by DECI or Resident Engineer).

2. Forebays/sediment traps shall be monitored weekly. Trapped sediment shall be removed, respread, & stabilized (by Contractor).

3. Vegetative plantings (seeding, sodding, etc.) shall be checked periodically to verify adequate ground cover is being established. Areas of insufficient cover shall be reseeded (by Contractor).

4. Repairs to erosion control devices shall be made immediately upon discovery (by Contractor).

WETLAND BUFFER PRAIRIE PLANTINGS

Species	Common Name	lbs/acre	Size of Stock (in.)
Andropogon gerardii	Big bluestem	4.00	48–96
Andropogon scoparius	Little bluestem	4.00	24–36
Bouteloua curtipendula	Side–oats grama	2.00	12–36
Panicum virgatum	Switch grass	2.00	36–60
Asclepias tuberosa	Butterfly weed	0.05	12–36
Aster ericoides	Heath aster	0.125	12–36
Aster novae–angliae	New England aster	0.05	12–48
Echinacea purpurea	Purple coneflower	0.50	24–36
Elymus Canadensis	Canada Wild Rye	1.00	
Penstemon digitalis	Foxglove beardtongue	0.125	24–48
Panicum virgatum	Switchgrass	1.00	
Monarda fistulosa	Wild bergamot	0.05	24–48
Ratibida pinnata	Yellow coneflower	0.25	12–48
Rudbeckia hirta	Black–eyed Susan	1.00	12–36
Sorghastrum Nutans	Indian Grass	2.00	
Annual Ryegrass		25.00	
Oats, Spring		25.00	
Perennial Ryegrass		15.00	

LEGEND

- NATIVE PLANTINGS- SEEDING CLASS 4 MODIFIED WITH EROSION BLANKET AND TOPSOIL RESPREAD
- INLET FILTERS
- PERIMETER EROSION BARRIER

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-Morris Avenue ESCP.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

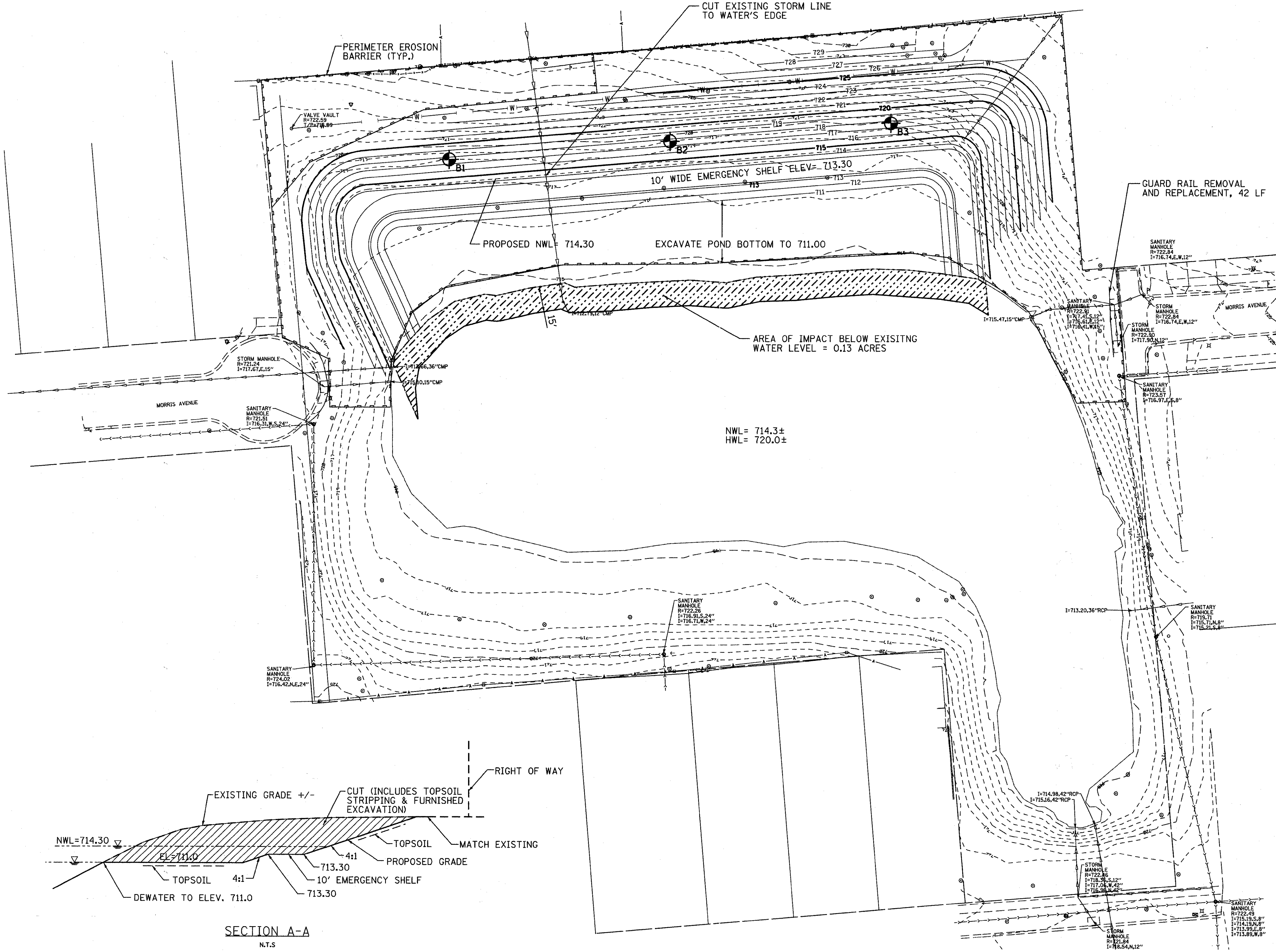
USER NAME = daly	DESIGNED - BD	REVISED -
	DRAWN - DC	REVISED -
PLOT SCALE = 30.0000 ' / IN.	CHECKED - BD	REVISED -
PLOT DATE = 7/22/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

MORRIS AVENUE POND BORROW AREA EROSION CONTROL & LANDSCAPE PLAN

SCALE: 1"=30' | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	36
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



N

1'=30'

GENERAL NOTES:

1. THIS POND IS AN APPROVED BORROW AREA. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INCORPORATED PRIOR TO BORROW EXCAVATION.
2. ONLY BORROW EXCAVATION SHALL LEAVE SITE. ALL UNSUITABLE MATERIAL SHALL BE STOCK PILED AND RESPREAD AFTER BORROW EX COMPLETE.
3. VOLUME OF BORROW EXCAVATION FROM THIS POND PER GRADING PLAN IS 1,600 CU YD. UNDERCUT MAY BE NECESSARY TO ACHIEVE THE VOLUME.
4. SEE SOIL BORINGS SHEET FOR DEPTH TO SUITABLE MATERIAL.

* SEQUENCE:

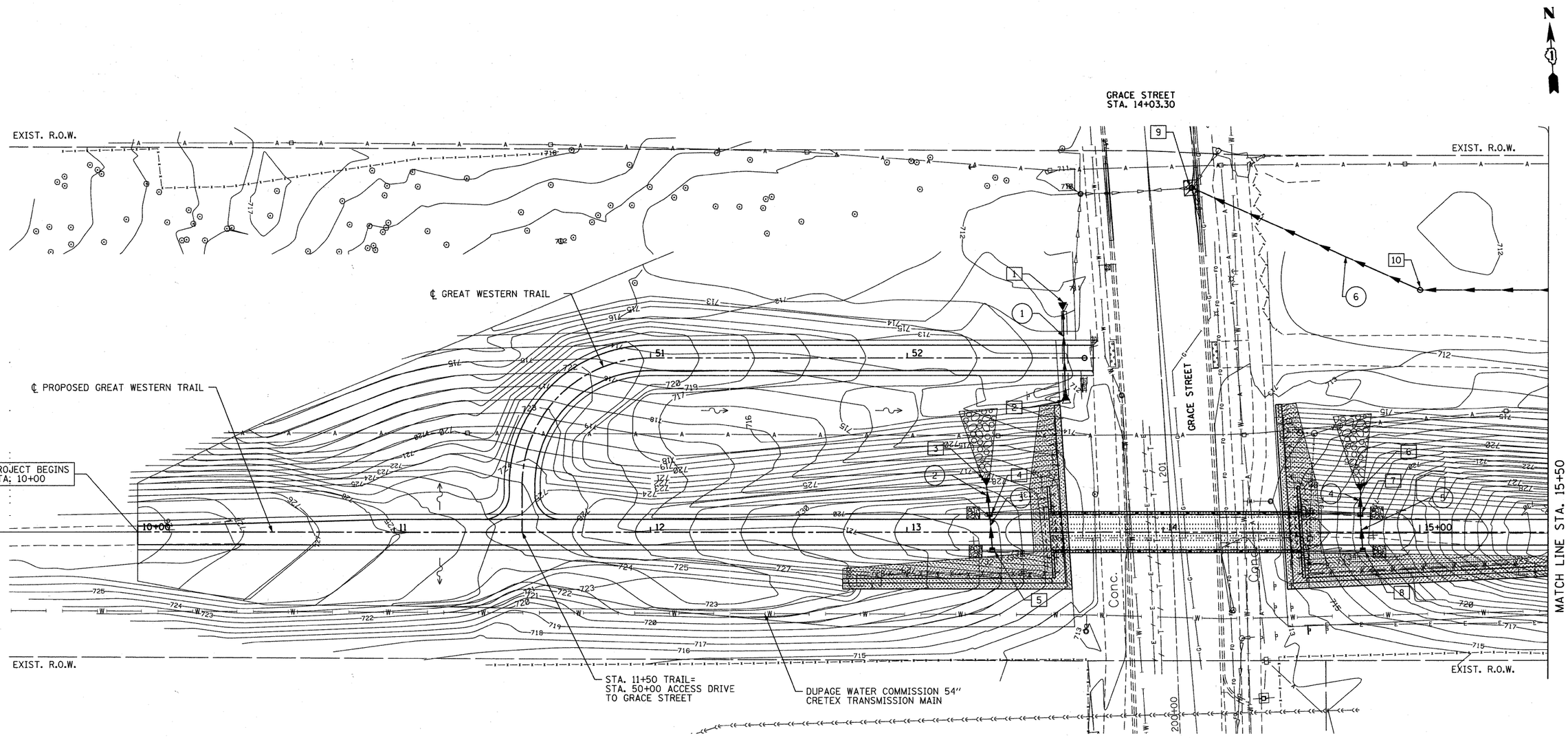
A. STRIP AND STOCKPILE TOPSOIL.
B. STOCKPILE UNSUITABLE IF ENCOUNTERED.
C. REMOVE BORROW EXCAVATION.
D. GRADE SITE PER PLAN WITH TOPSOIL RESPREAD OVER SITE IN UNIFORM THICKNESS.
E. SEED AND SOD AS SHOWN ON PLAN.

SECTION A-A
N.T.S

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-Morris Avenue Grading.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = daly	DESIGNED - BD	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL	MORRIS AVENUE POND BORROW AREA GRADING PLAN
		DRAWN - DC	REVISED -		
	PLOT SCALE = 30.0000 ' / IN.	CHECKED - BD	REVISED -		
	PLOT DATE = 7/22/2011	DATE -	REVISED -		SCALE: 1"=30' / SHEET NO. / SHEETS / STA. / TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	37
		CONTRACT NO. 63568		
		ILLINOIS FED. AID PROJECT		



1. STA. 13+61.00, 90.07' LT
PRC FLAR END SEC, 12"
S INV=711.10

2. STA. 13+62.36, 49.85' LT
PRC FLAR END SEC, 12"
N INV=711.40

3. STA. 13+30.96, 19.55' LT
PRC FLAR END SEC, 12"
S INV=729.39

4. STA. 13+32.29, 6.87' LT
INLET TB, T3 F&G
RIM ELEV=733.70
N INV=729.57
S INV=729.57

5. STA. 13+33.30, 6.87 RT
INLET TA, T3 F&G
RIM ELEV=733.70
N INV=729.70

6. STA. 14+76.77, 17.54' LT
PRC FLAR END SEC, 12"
S INV=730.30

7. STA. 14+76.80, 6.87' LT
INLET TB, T3 F&G
RIM ELEV=734.59
N INV=730.46
S INV=730.46

8. STA. 14+77.81, 6.88' RT
INLET TA, T3 F&G
RIM ELEV=734.59
N INV=730.59

9. STA. 14+10.95, 134.90' LT
CB TA, T1 F&G
RIM ELEV=712.00
SE INV=708.00

10. STA. 15+00.00, 95.00' LT
INLET TB, T8 F&G
RIM ELEV=711.50
NW INV=709.00
E INV=709.00

(1) STORM SEWERS CLASS A,
TYPE 2 - 12" = 30 FT @1%

(2) STORM SEWERS CLASS A,
TYPE 2 - 12" = 12 FT @1%

(3) STORM SEWERS CLASS A,
TYPE 2 - 12" = 13 FT @1%

(4) STORM SEWERS CLASS A,
TYPE 2 - 12" = 10 FT @1%

(5) STORM SEWERS CLASS A,
TYPE 2 - 12" = 13 FT @1%

(6) STORM SEWERS CLASS A,
TYPE 2 - 12" = 98 FT @0.5%

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\01756004-sht-dr-sun1.dgn

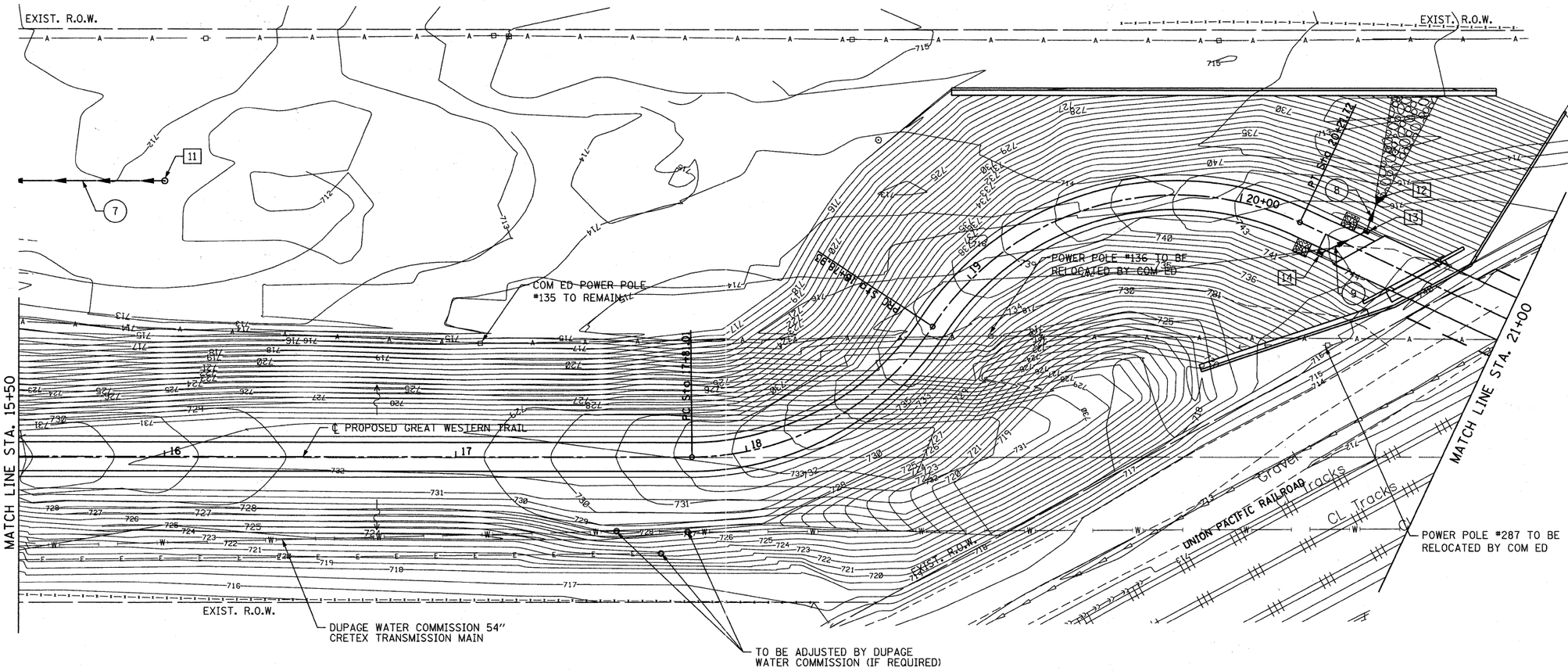
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

DRAINAGE, GRADING AND UTILITIES

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 10+00 | TO STA. 15+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	38
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



11 STA. 16+00.00' 95.00' RT
INLET TB, T8 F&G
RIM ELEV=711.50
W INV=709.00

12 STA. 20+42.79' 17.91' LT
PRC FLAR END SEC, 12"
S INV=739.67

13 STA. 20+43.71, 6.88' LT
INLET TB, T3 F&G
RIM ELEV=744.12
NE INV=739.83
SW INV=739.83

14 STA. 20+32.48, 6.87' RT
INLET TA, T3 F&G
RIM ELEV=744.00
NE INV=740.00

7 STORM SEWERS CLASS A,
TYPE 2 - 12" = 100 FT @0.5%

8 STORM SEWERS CLASS A,
TYPE 2 - 12" = 10 FT @1%

9 STORM SEWERS CLASS A,
TYPE 2 - 12" = 17 FT @1%

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-dran2.dgn

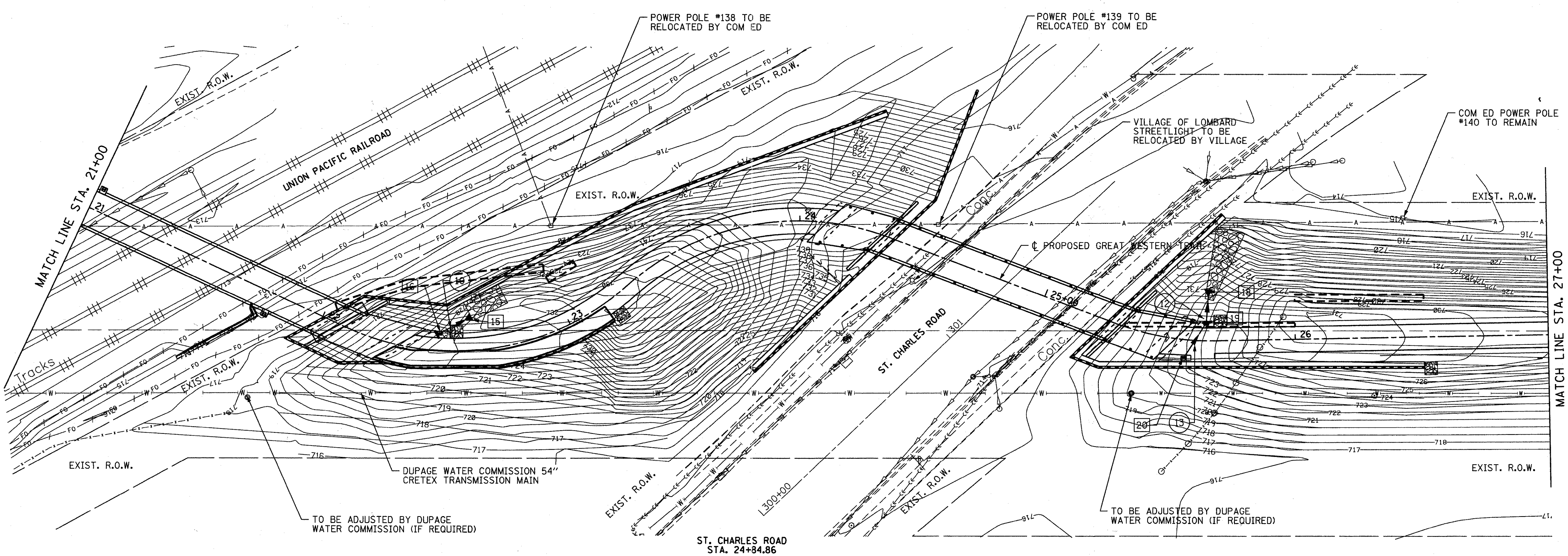
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -
		DRAWN - DC	REVISED -
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -
	PLOT DATE = 7/26/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

DRAINAGE, GRADING AND UTILITIES

SCALE: 1"=20' | SHEET NO. | SHEETS | STA. 15+50 | TO STA. 21+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	39
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



[15] STA. 22+67.72, 21.10' LT
PRC FLAR END SEC, 12"
SW INV=739.72

[16] STA. 22+47.38, 6.87' LT
INLET TB, T3 F&G
RIM ELEV=743.93
NE INV=739.91
SW INV=739.91

[18] STA. 25+60.90, 20.54' LT
PRC FLAR END SEC, 12"
SW INV=731.42

[19] STA. 25+63.02, 6.87' LT
INLET TB, T3 F&G
RIM ELEV=735.45
NE INV=731.59
SW INV=731.59

[20] STA. 25+54.03, 6.87' RT
INLET TA, T3 F&G
RIM ELEV=735.75
NE INV=731.75

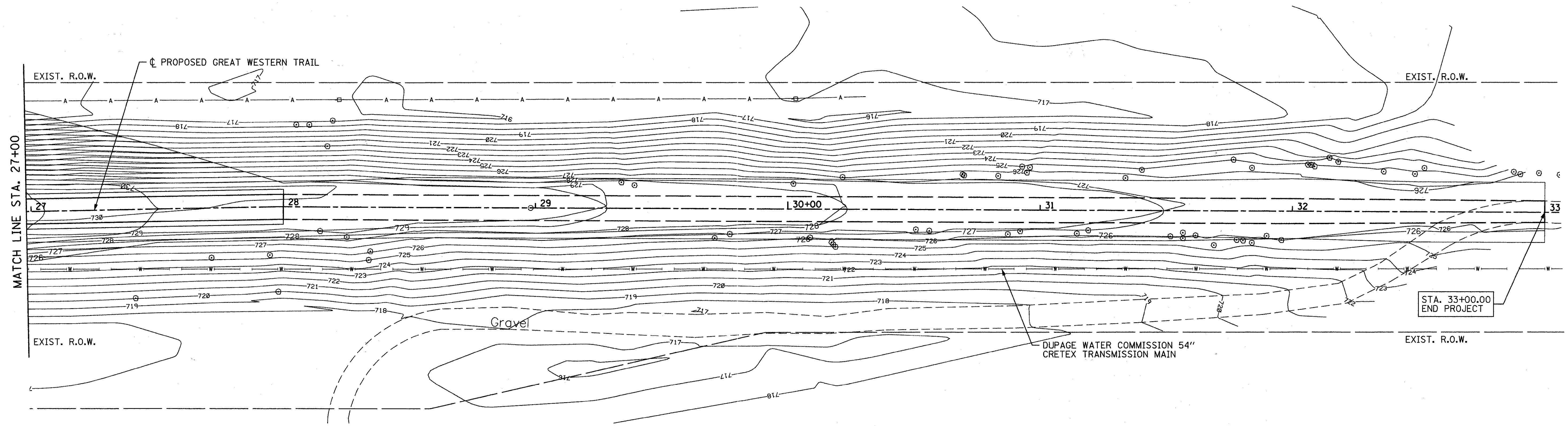
(10) STORM SEWERS CLASS A, TYPE 2 - 12" = 19 FT @1%

(12) STORM SEWERS CLASS A, TYPE 2 - 12" = 11 FT @1%

(13) STORM SEWERS CLASS A, TYPE 2 - 12" = 16 FT @1%

FILE NAME = W:\756-004.Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-drain3.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL	DRAINAGE, GRADING AND UTILITIES	F.A. RTE.	SECTION: 06-00151-00-BR; COUNTY: DuPAGE; TOTAL SHEETS: 201; SHEET NO.: 40
		DRAWN - DC	REVISED -				
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -				CONTRACT NO. 63568
	PLOT DATE = 7/26/2011	DATE -	REVISED -		SCALE: 1"=20' SHEET NO. SHEETS STA. 21+00 TO STA. 27+00		ILLINOIS FED. AID PROJECT

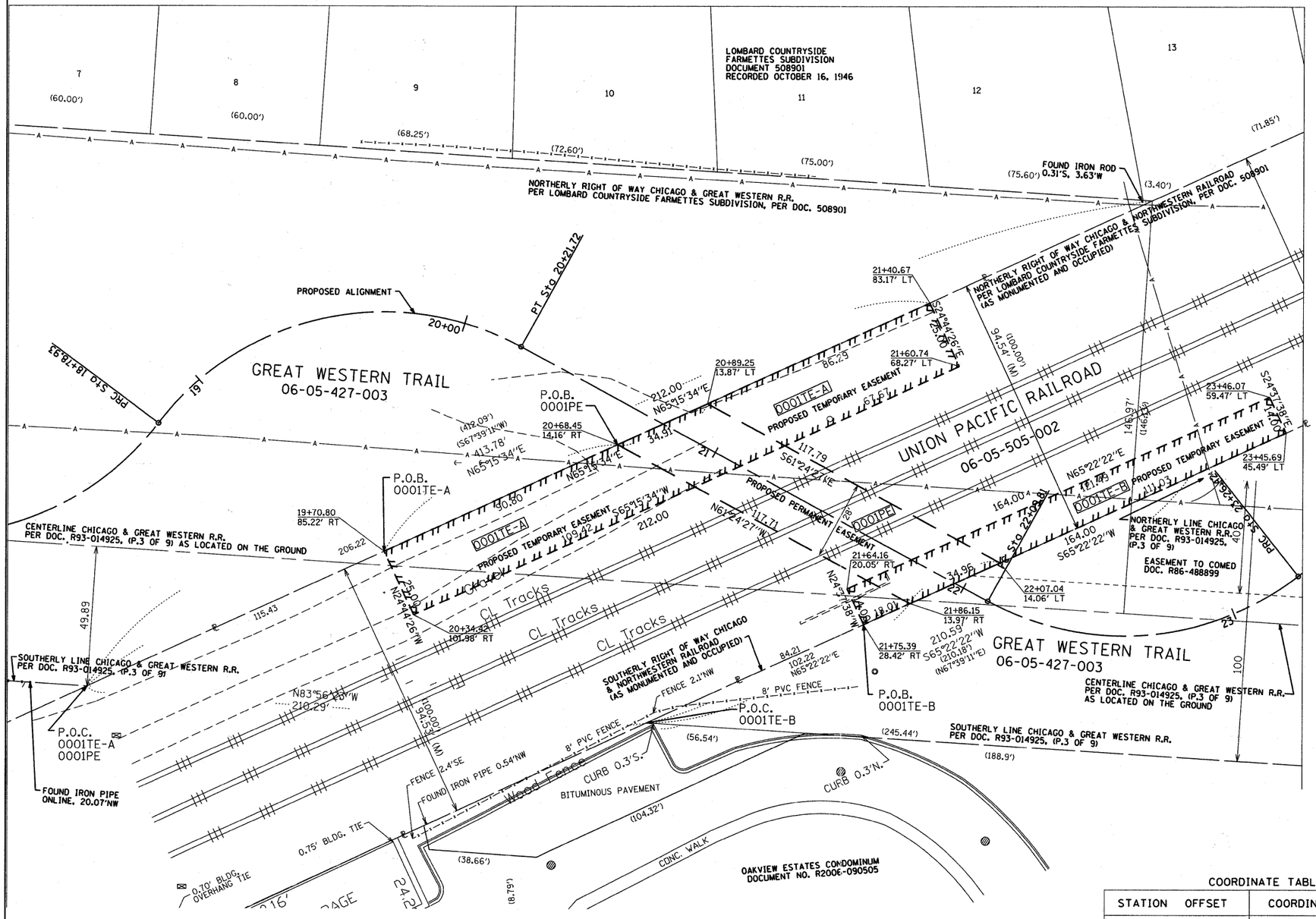


FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\CADD Sheets\D1756004-sht-drain4.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED - BD	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL	DRAINAGE, GRADING AND UTILITIES	
		DRAWN - DC	REVISED -			
	PLOT SCALE = 20.00 ' / IN.	CHECKED - BD	REVISED -			
	PLOT DATE = 7/25/2011	DATE -	REVISED -		SCALE: 1"=20' SHEET NO. SHEETS STA. 27+00 TO STA. 30+00	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	41
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

PART OF THE SOUTHEAST QUARTER OF SECTION 5, TWP.39N., R.11E. OF THE 3RD. P.M., IN DUPAGE COUNTY, ILLINOIS.



LEGEND

9 10 / 16 15	SECTION CORNER
16 — 15	QUARTER SECTION CORNER
	SECTION LINE
	QUARTER SECTION LINE
	QUARTER, QUARTER SECTION LINE
	PLATTED LOT LINES
℄	PROPERTY (DEED) LINE
APL	APPARENT PROPERTY LINE
	CENTERLINE
	EXISTING RIGHT OF WAY LINE
	PROPOSED RIGHT OF WAY LINE
	PROPOSED EASEMENT
129.32'	MEASURED DIMENSION
129.32' (COMP)	COMPUTED DIMENSION
(129.32')	RECORDED DIMENSION
	EXISTING BUILDING

N

GRAPHIC SCALE FEET
20
SCALE: 1" = 20'

Bearings are referenced to the Illinois Coordinate System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

○	IRON PIPE OR ROD FOUND
⊕	"MAG" NAIL SET
+	CUT CROSS FOUND OR SET
●	5/8" REBAR SET
● TI T2 T3	THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
● BT1 BT2 BT3	THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
■	STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
■ M	STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
◔	PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
□	RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
)SS
COUNTY OF DUPAGE)

THIS IS TO CERTIFY THAT WE, BOLLINGER LACH & ASSOCIATES, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001129, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 5, TOWNSHIP 39 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUAPGE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT ITASCA, ILLINOIS THIS_____DAY OF_____20___A.D.

_____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-3648
LICENSE EXPIRATION DATE: 11/30/2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

PROP. CURVE GWT_CL_REV-1
PI STA. = 18+34.29
Δ = 56° 06' 08" (LT)
D = 57° 17' 45"
R = 100.00'
T = 53.29'
L = 97.92'
E = 13.31'
P.C. STA. = 17+81.01
P.T. STA. = 18+78.92

PROP. CURVE GWT_CL_REV-2
PI STA. = 19+65.57
Δ = 81° 48' 51" (RT)
D = 57° 17' 45"
R = 100.00'
T = 86.64'
L = 142.79'
E = 32.31'
P.C. STA. = 18+78.92
P.T. STA. = 20+21.72

PROP. CURVE GWT_CL_REV-3
PI STA. = 22+75.76
Δ = 66° 48' 32" (LT)
D = 57° 17' 45"
R = 100.00'
T = 65.95'
L = 116.60'
E = 19.79'
P.C. STA. = 22+09.81
P.T. STA. = 23+26.41

PROP. CURVE GWT_CL_REV-4
PI STA. = 23+87.23
Δ = 62° 36' 31" (RT)
D = 57° 17' 45"
R = 100.00'
T = 60.81'
L = 109.27'
E = 17.04'
P.C. STA. = 23+26.41
P.T. STA. = 24+35.69

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0001TE-A 0001TE-B 0001PE	UNION PACIFIC RAILROAD					TE-A = 0.122 TE-B = 0.053 PE = 0.076	5,300 2,296 3,297		06-05-505-002	

REVISION DATE:

COORDINATE TABLE

STATION OFFSET	COORDINATES
19+70.00 - 85.22' RT.	1,902,794.72N - 1,073,243.61E
20+34.42 - 101.98' RT.	1,902,771.59N - 1,073,253.11E
20+68.45 - 14.16' RT.	1,902,829.22N - 1,073,327.60E
20+89.25 - 13.87' LT.	1,902,842.49N - 1,073,359.89E
21+40.67 - 83.17' LT.	1,902,875.28N - 1,073,439.70E
21+60.74 - 68.27' LT.	1,902,852.15N - 1,073,449.20E
21+64.16 - 20.05' RT.	1,902,774.75N - 1,073,406.52E
21+75.39 - 28.42' RT.	1,902,761.79N - 1,073,411.82E
21+86.15 - 13.97' RT.	1,902,768.60N - 1,073,428.49E
22+07.04 - 14.06' LT.	1,902,781.82N - 1,073,460.86E
23+45.69 - 45.49' LT.	1,902,823.81N - 1,073,563.64E
23+46.07 - 59.47' LT.	1,902,836.77N - 1,073,558.34E

REVISION MADE BY

Bollinger, Lach & Associates, Inc.
333 PIERCE ROAD, SUITE 200 - ITASCA, IL 60143
P:(630) 438 6400 F:(630) 438 6444 www.bollingerlach.com
ITASCA • CHICAGO • ALGONQUIN • LAKE GENEVA • SOUTH BEND • INDIANAPOLIS

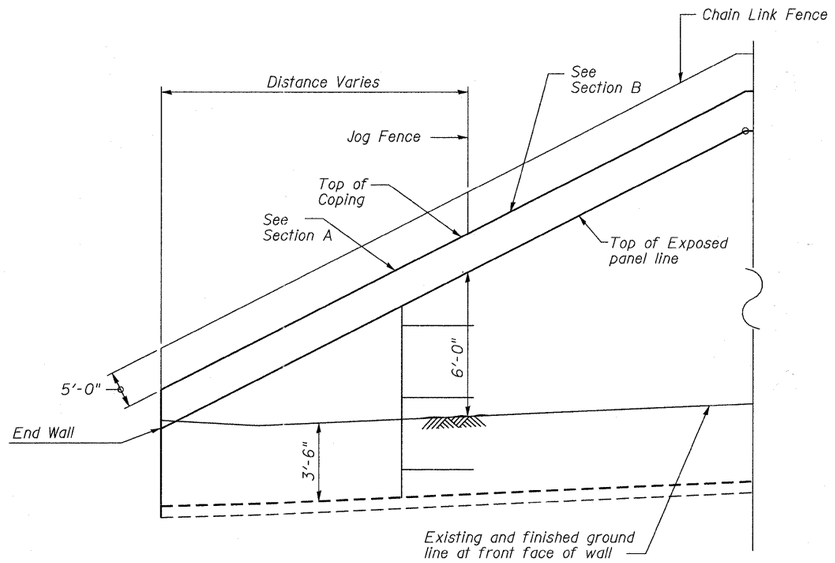
PLAT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
GREAT WESTERN TRAIL

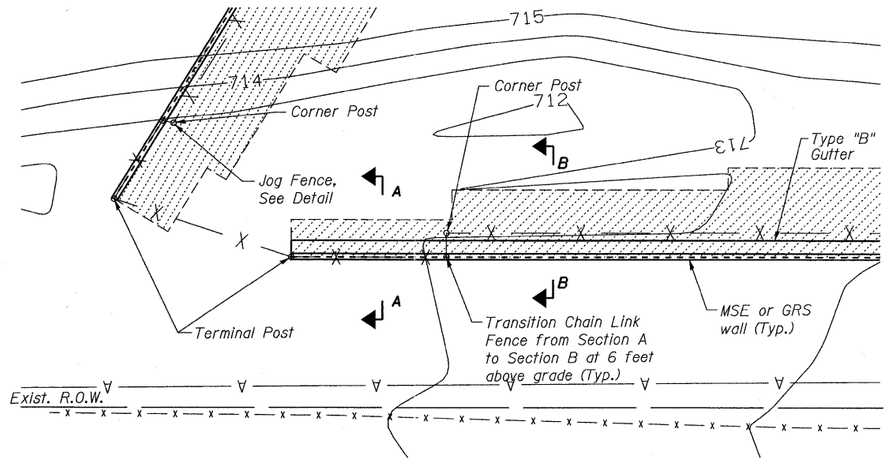
SECTION: 06-00151-00-BR COUNTY: DU PAGE
JOB NO. R-55-001-97
STATION 19+00 TO STATION 23+50
SCALE: 1"=20' SHEET 42 OF 201

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

ROUTE NAME: GREAT WESTERN TRAIL SECTION: 06-00151-00-BR COUNTY: DUPAGE JOB NO.: R-55-001-97 RECORDING: RECORDED ON



ELEVATION
(@ Front Face of Wall)
(MSE wall shown)
(Block wall similar)

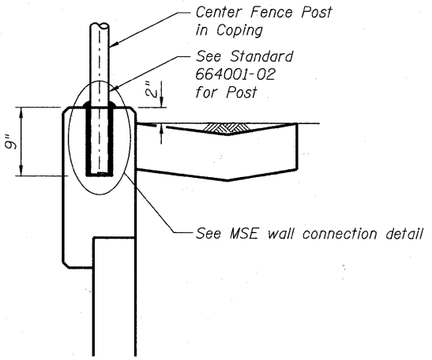


TYPICAL PLAN

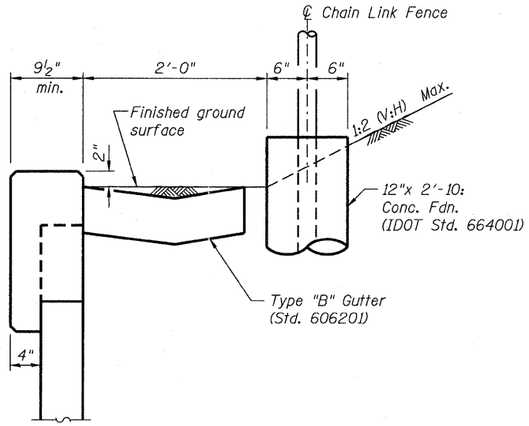
FILE NAME = W:\795-004_Lombard - GWT Bridges Phase II\CADD Sheets\Structural\756-004_TYP FENCE DETAIL 1.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = cesario	DESIGNED -	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL	CHAIN LINK FENCE TRANSITION DETAIL
		CHECKED -	REVISED -		
	PLOT SCALE =	DRAWN -	REVISED -		SHEET NO. SHEETS
	PLOT DATE = 7/25/2011	CHECKED -	REVISED -		

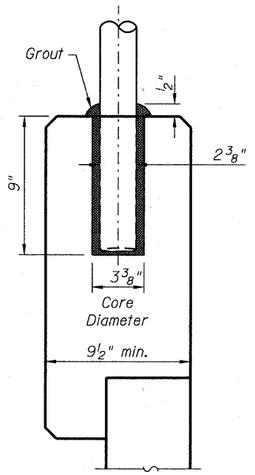
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	43
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



SECTION A THRU MSE WALL



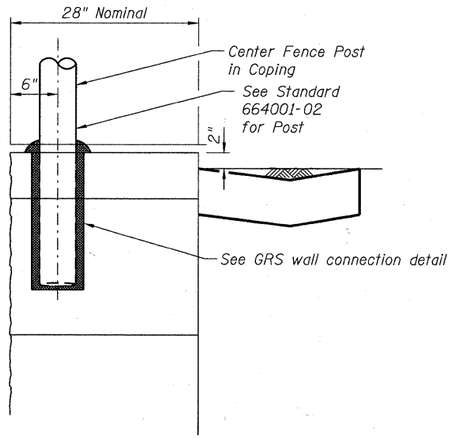
SECTION B THRU MSE WALL



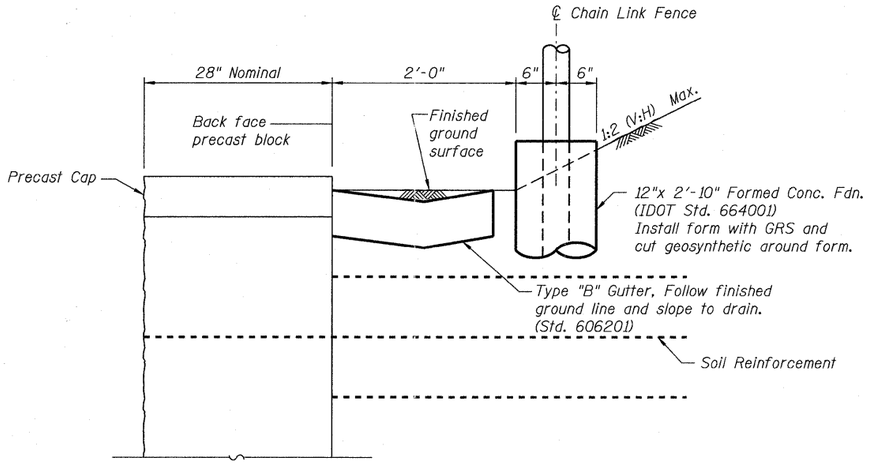
MSE WALL CONNECTION DETAIL

Notes:

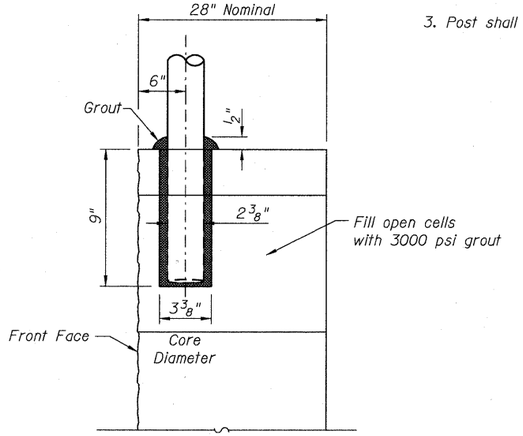
1. Fill hole with grout prior to post placement.
2. Ensure grout is ½" higher on post than on Coping/Cap. There should not be a pocket around post in coping from grout settlement.
3. Post shall be plumb.



SECTION A THRU GRS WALL



SECTION B THRU GRS WALL



GRS WALL CONNECTION DETAIL

Notes:

1. Follow Standard 664001-02 for fence materials and installation.
2. Fence post shall not exceed eight feet.
3. All posts used in section A shall be Terminal Post type A, $2\frac{3}{8}$ inch O.D.
4. All costs included with fence item.

FILE NAME =

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

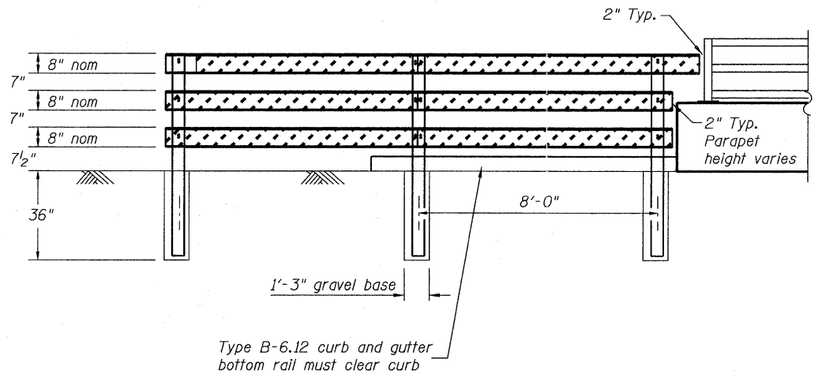
USER NAME =	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

FENCE CONNECTION DETAILS ALONG WALLS

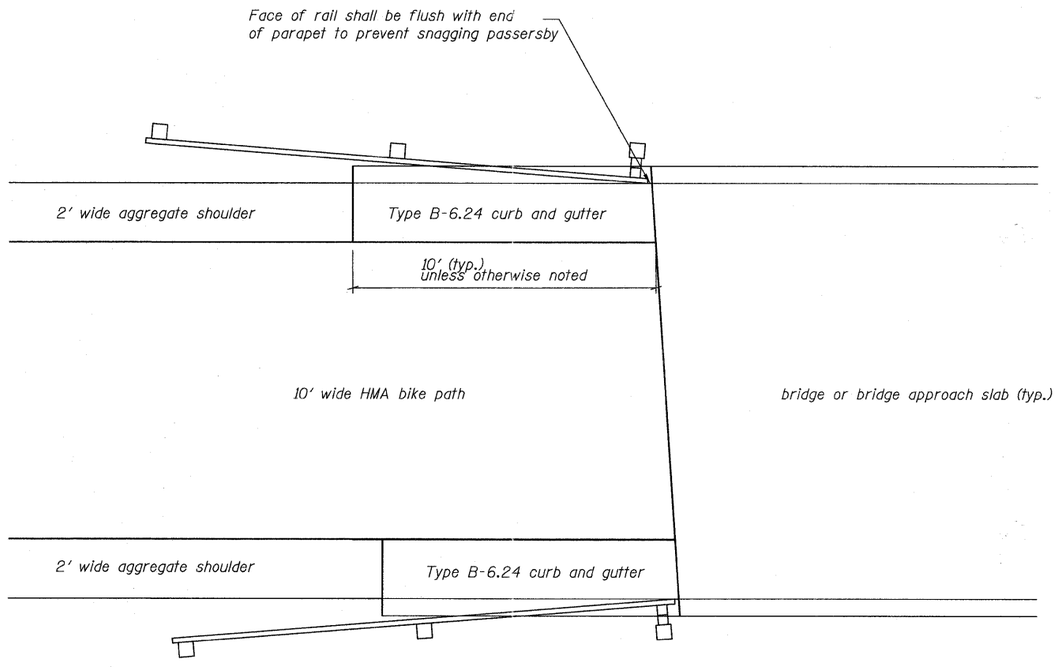
SHEET NO. SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	44
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



Notes:
Wood shall be southern pine or douglas fir.
Wood shall be pressure treated with CCA or ACA. Two coats of clear sealing product shall be applied to the completed fence.
See specs.

ELEVATION



PLAN VIEW

FILE NAME =

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

WOOD POST AND RAIL FENCE

SHEET NO. SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	45
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		

GENERAL ELECTRICAL PLAN NOTES

1. POLES SPECIFIED SHALL BE SINGLE HANDHOLE BELOW GRADE TYPE EXCEPT POLES ON UPRR BRIDGE WHICH SHALL BE SINGLE HANDHOLE WITH BASE PLATE MOUNTED ON BRIDGE STRUCTURE.
2. ALL LIGHT STANDARDS SHALL BE LOCATED A MINIMUM OF 3'-0" BEHIND THE EDGE OF BIKE PATH. FROM STA. 28+00 TO STA. 33+00, LIGHT STANDARDS SHALL BE LOCATED A MINIMUM OF 1'-0" BEHIND EDGE OF BIKE PATH.
3. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL EQUIPMENT SUBMITTALS HAVE BEEN APPROVED BY THE VILLAGE.
4. THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY COMPANY TO COORDINATE THE ELECTRIC SERVICE WORK.
5. THE QUANTITIES OF RACEWAY WHERE INDICATED IN THESE PLANS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
6. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
7. THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF LOMBARD/DUPAGE COUNTY TO LOCATE AND MARK/STAKE ALL VILLAGE OWNED AND COUNTY OWNED UNDERGROUND UTILITIES.
8. TRENCHES FOR LIGHTING RACEWAYS SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT POLE IS ERECTED.
9. WHERE SEPARATE CIRCUIT RUNS ARE TO BE INSTALLED PARALLEL WITH EACH OTHER, ONE COMMON TRENCH SHALL BE USED AND SHALL BE MEASURED ONLY ONCE FOR PAYMENT, AS TRENCH AND BACKFILL FOR ELECTRICAL WORK.
10. ALL GROUND RODS SHALL BE CAD WELDED.
11. AT THE COMPLETION OF THE PROJECT THE LIGHTING SYSTEMS SHALL BE OWNED AND MAINTAINED BY THE VILLAGE OF LOMBARD.
12. LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS, NEC AND LOCAL CODES.
13. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE U/L LISTED AND LABELED.
14. TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE LIGHT POLES, THE LIGHT POLES SHALL NOT BE ERECTED AND/OR LEFT TO STAND WITHOUT LUMINAIRE. NOTE THAT THE LIGHT POLES WILL NOT BE PAID FOR UNTIL THE POLES ARE FULLY APPROVED AND THE LUMINAIRES ARE INSTALLED.
15. ADJUSTMENT OF LIGHT LOCATIONS DUE TO ISOLATED CONDITIONS SHALL BE APPROVED BY THE VILLAGE; MODIFICATION IN ONE LOCATION MAY RESULT IN ADJUSTMENTS TO ADJACENT LIGHT LOCATIONS IN ORDER TO PROVIDE A GRADUAL TRANSITION.
16. LUMINAIRES SHALL HAVE A TIGHT FIT ON LIGHT POLES TO THE SATISFACTION OF THE VILLAGE. THIS WORK SHALL INCLUDE FIELD ADJUSTING OF THE LUMINAIRE AND SHALL BE INCIDENTAL TO THE LUMINAIRE PAY ITEM.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM DUPAGE COUNTY, DIVISION OF TRANSPORTATION PRIOR TO STARTING WORK.

STREET LIGHTING REQUIREMENTS FOR CONTRACTORS AND RESIDENT ENGINEERS

1. ELECTRICAL CONTRACTOR SHALL APPLY FOR A VILLAGE OF LOMBARD BUILDING PERMIT FOR ELECTRICAL CABINET INSTALLATION (NO FEE WILL BE CHARGED)
2. ITEMS NEEDED WITH APPLICATION ARE:
   - CERTIFICATE OF INSURANCE.
   - COPY OF ELECTRICAL LICENSE
   - 2 SETS OF ORIGINAL APPROVED DRAWINGS FOR UL LISTED AND LABELED STREET LIGHTING CABINET.
3. WHEN CALLED BY THE VILLAGE OF LOMBARD BUILDING DEPARTMENT THAT THE PERMIT IS READY, ELECTRICAL CONTRACTOR SHALL PICK UP PERMIT.
4. ONCE INSTALLATION IS COMPLETE IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO CALL THE BUILDING DEPARTMENT AT (630)620-5750 AND SCHEDULE AN INSPECTION FOR THE ELECTRICAL PANEL CONTRACTOR WILL RECEIVE A DATE OF INSPECTION.
5. THE CONTRACTOR IS THEN TO CHECK THE PANEL OR CALL THE BUILDING DEPARTMENT AT (630) 620-5750 THE DAY AFTER THE INSPECTION FOR THE RESULTS OF THE INSPECTION. A YELLOW TAG MEANS THAT IT HAS PASSED INSPECTION. A RED TAG MEANS THAT IS HAS FAILED AND THERE IS AN INSPECTION SHEET IN THE ELECTRICAL METER PANEL STATING WHAT NEEDS TO BE CORRECTED. IF THE INSTALLATION IS YELLOW TAGGED THE BUILDING INSPECTOR WILL CALL COMED AND REQUEST ELECTRICAL SERVICE BE CONNECTED AND METER INSTALLED.
6. IF THE INSTALLATION HAS BEEN RED TAGGED THE CONTRACTOR SHALL COMPLETE PROBLEMS THE BUILDING INSPECTOR HAS NOTED.
7. THE ELECTRICAL CONTRACTOR SHALL CALL THE VILLAGE OF LOMBARD BUILDING DEPARTMENT FOR A SECOND INSPECTION. IF CABINET PASSES THIS TIME IT WILL BE YELLOW TAGGED AND THE BUILDING INSPECTOR WILL CALL COMED AND REQUEST ELECTRICAL SERVICE BE CONNECTED AND METER INSTALLED.
8. THE STREET LIGHTING SYSTEM WILL THEN BE TEST BURNED FOR 7 CONSECUTIVE DAYS AND NIGHTS.

SCHEDULE OF QUANTITIES

	PAY ITEM	ITEM	UNIT	QUANTITY
	80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
*	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
	81000600	CONDUIT IN TRENCH, 2" DIA. GALVANIZED STEEL	FOOT	59
	81001000	CONDUIT IN TRENCH, 4" DIA. GALVANIZED STEEL	FOOT	12
	81018500	CONDUIT PUSHED, 2" DIA. GALVANIZED STEEL	FOOT	50
	81019000	CONDUIT PUSHED, 5" DIA. GALVANIZED STEEL	FOOT	52
	81200240	CONDUIT EMBEDDED IN STRUCTURE, 2 1/2" DIA., PVC	FOOT	884
	81304700	JUNCTION BOX EMBEDDED IN STRUCTURE 18"X18"X6"	EACH	13
	81400700	HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	4
	81603040	UNIT DUCT, 600V, 2-1/C #6, 1/C #8 GROUND (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	3221
	81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C #8	FOOT	996
	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C #6	FOOT	1992
	81702150	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C #2	FOOT	177
	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	3071
*	X8250500	LIGHTING UNIT COMPLETE, SPECIAL	EACH	27
*	X8250505	LIGHTING CONTROLLER, SPECIAL	EACH	1

* REQUIRES SPECIAL PROVISIONS

LEGEND

- LIGHTING UNIT:14 FT DIRECT BURIAL CONCRETE POLE 66 WATT LED TYPE 3
- B — LIGHTING UNIT:13 FT BRIDGE MOUNT CONCRETE POLE 66 WATT LED TYPE 3
- HANDHOLE
- UNIT DUCT 2 1/C #6 WITH 1/C #8 GROUND IN 1" DIA. POLYTHYLENE (2-UNIT DUCT AS INDICATED)
- ELECTRIC CABLE IN 2" CONDUIT 3-1/C #2 (EPR-TYPE USE) INSTALLED IN TRENCH
- UTILITY SERVICE CONNECTION, POLE MOUNTED
- LIGHTING CONTROLLER
- P — RIGID GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED AS INDICATED
- J — JUNCTION BOX EMBEDDED IN STRUCTURE

AMES Engineering, Inc.
CONSULTING ENGINEERS
1241 Warren Avenue
Downers Grove, IL 60515
(630) 737-1907 (t); (630) 470-8801 (f)
www.amesengineeringinc.com

LTG-01

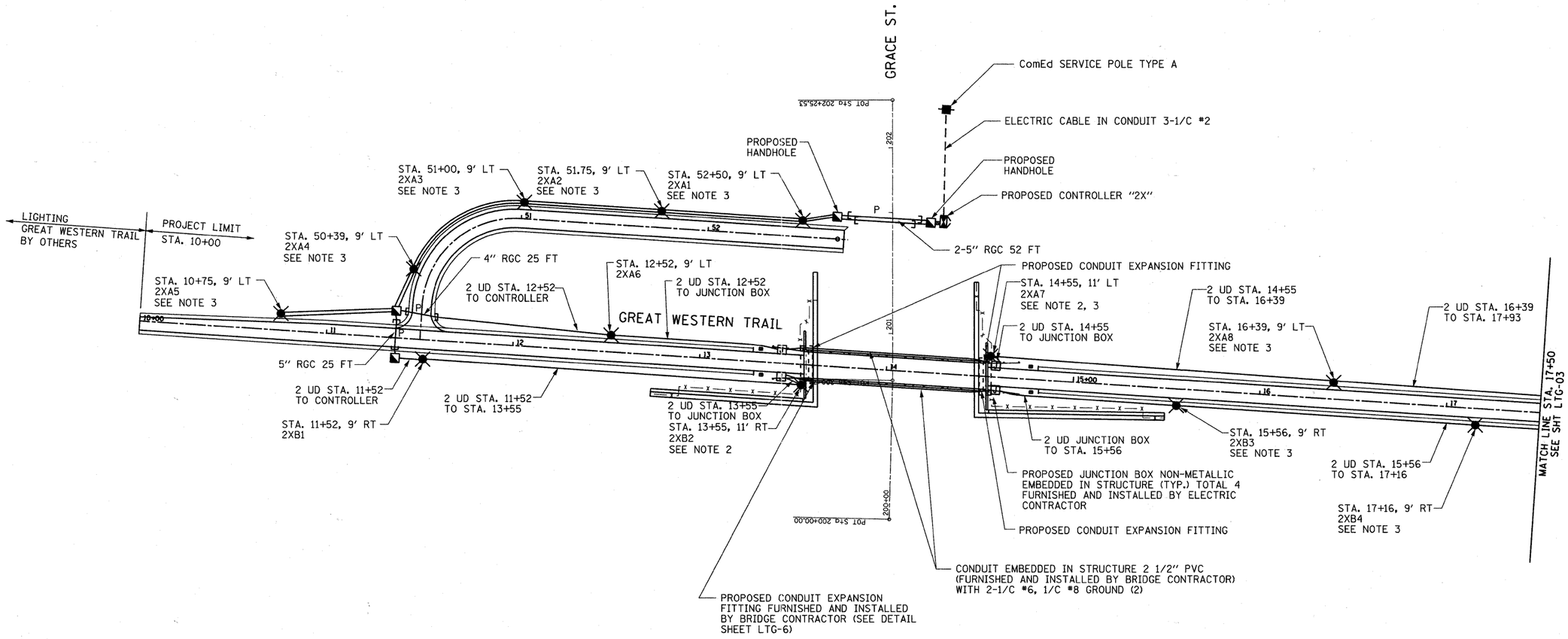
FILE NAME = W:\756-004_Lombard - GWT Bridges Phase	USER NAME = cesario	DESIGNED - BL	REVISED -
	I:\REC'D DRAWINGS\AMES\D1756004-Ltg-01.dgn	DRAWN - RV	REVISED -
	PLOT SCALE = 50.00 ' / IN.	CHECKED - MSA	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

GENERAL NOTES, LEGEND AND QUANTITIES

SCALE: | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	46
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE BRIDGE PLANS FOR CONDUIT AND JUNCTION BOX IN BRIDGE STRUCTURE TO COORDINATE LOCATION ON GRACE STREET BRIDGE.
2. LIGHTING UNIT SHALL BE EQUIPPED WITH GFI OUTLET.
3. LUMINAIRE SHALL BE EQUIPPED WITH BACK SHIELD (DETAIL SHEET LTG-07)

LTG-02

AMES Engineering, Inc.
CONSULTING ENGINEERS
1341 Warren Avenue
Downers Grove, IL 60515
(630) 737-1987 (t); (630) 470-0891 (f)
www.amesengineeringinc.com

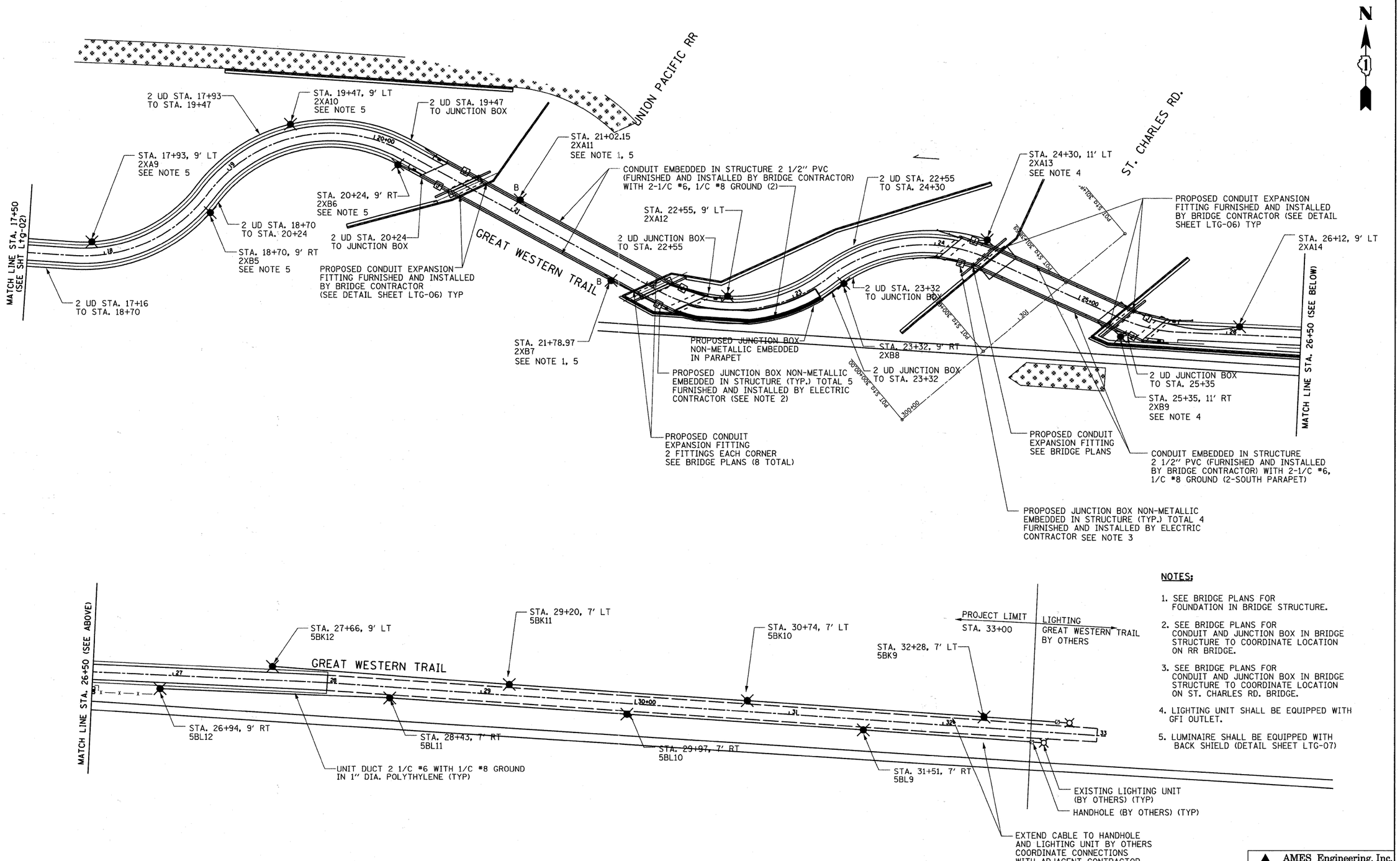
FILE NAME = W:\756-004_Lombard - GWT Bridges Phase	USER NAME = cesario	DESIGNED - BL	REVISED -
	I:\REC'D DRAWINGS\AMES\D1756004-Ltg-02.dgn	DRAWN - RV	REVISED -
	PLOT SCALE = 30.00 ' / IN.	CHECKED - MSA	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

LIGHTING PLAN
STA. 10+00 TO 17+50

SCALE:	SHEET NO.	SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	47
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SEE BRIDGE PLANS FOR FOUNDATION IN BRIDGE STRUCTURE.
2. SEE BRIDGE PLANS FOR CONDUIT AND JUNCTION BOX IN BRIDGE STRUCTURE TO COORDINATE LOCATION ON RR BRIDGE.
3. SEE BRIDGE PLANS FOR CONDUIT AND JUNCTION BOX IN BRIDGE STRUCTURE TO COORDINATE LOCATION ON ST. CHARLES RD. BRIDGE.
4. LIGHTING UNIT SHALL BE EQUIPPED WITH GFI OUTLET.
5. LUMINAIRE SHALL BE EQUIPPED WITH BACK SHIELD (DETAIL SHEET LTG-07)

AMES Engineering, Inc.
CONSULTING ENGINEERS
1341 Warren Avenue
Downers Grove, IL 60515
(630) 737-1867 (t); (630) 470-9891 (f)
www.amesengineeringinc.com

LTG-03

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\REC'D DRAWINGS\AMES\D1756004-Ltg-03.dgn	USER NAME = cesario	DESIGNED - BL	REVISED -
	PLOT SCALE = 30.00 ' / IN.	DRAWN - RV	REVISED -
	PLOT DATE = 7/25/2011	CHECKED - MSA	REVISED -
		DATE -	REVISED -

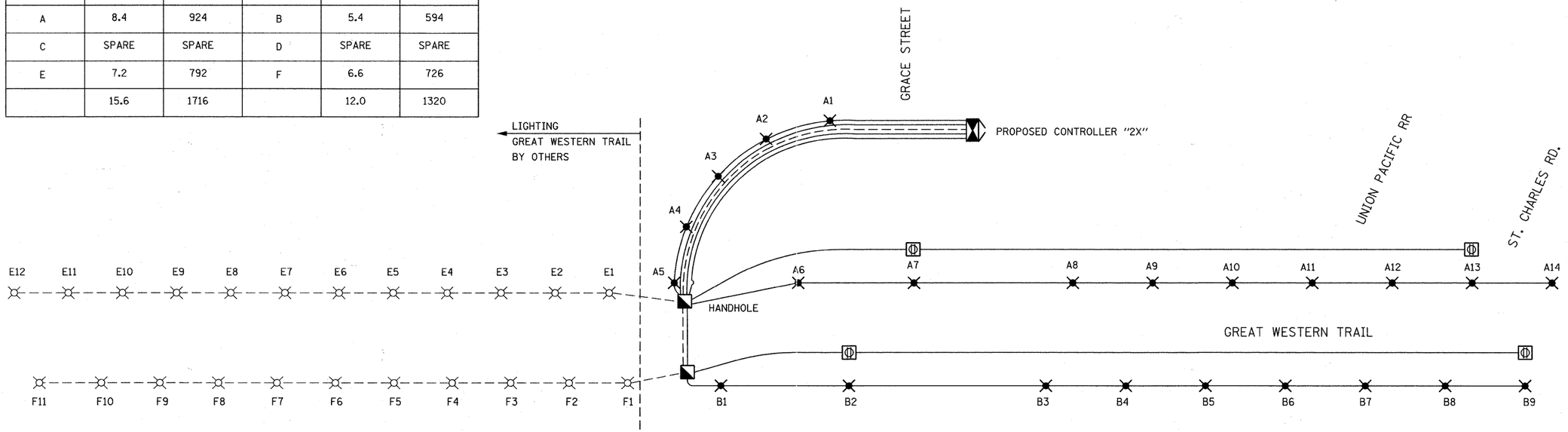
STATE OF ILLINOIS
GREAT WESTERN TRAIL

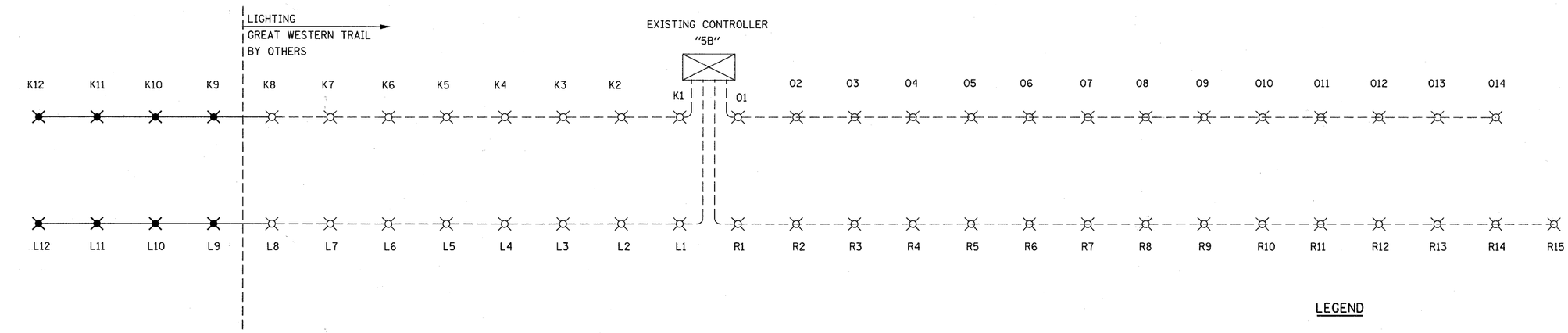
LIGHTING PLAN
STA. 17+50 TO STA. 33+00

SCALE: 1"=30' | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	48
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

CIRCUIT	AMPS	WATTS	CIRCUIT	AMPS	WATTS
A	8.4	924	B	5.4	594
C	SPARE	SPARE	D	SPARE	SPARE
E	7.2	792	F	6.6	726
	15.6	1716		12.0	1320





CIRCUIT	AMPS	WATTS	CIRCUIT	AMPS	WATTS
O	8.4	924	R	9.0	990
K	7.2	792	L	7.2	792
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE
	15.6	1716		16.2	1782

LEGEND

- 66 WATT LED TYPE 3 LUMINAIRE
- 66 WATT LED TYPE 3 LUMINAIRE (BY OTHERS)
- UNIT DUCT 2 1/C #6 WITH 1/C #8 GROUND
- UNIT DUCT 2 1/C #6 WITH 1/C #8 GROUND (BY OTHERS)
- RECEPTACLE DUPLEX GFCI 20 AMPERE COMMERICAL GRADE

LTG-04

AMES Engineering, Inc.
CONSULTING ENGINEERS
1341 Warren Avenue
Downers Grove, IL 60515
(630) 737-1987 (t), (630) 470-8681 (f)
www.amesengineeringinc.com

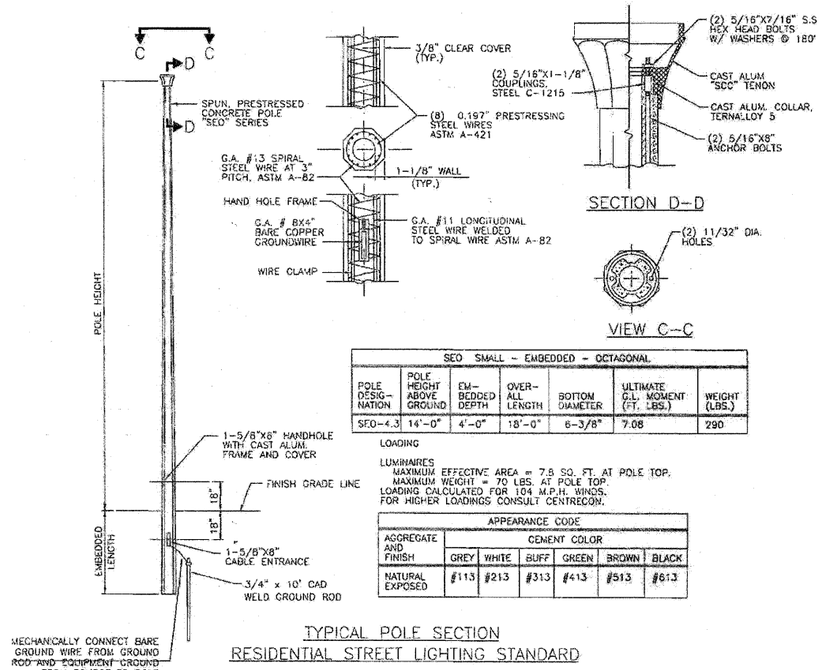
FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\REC'D DRAWINGS\AMES\D1756004-Ltg-04.dgn	USER NAME = cesario	DESIGNED - BL	REVISED -
		DRAWN - RV	REVISED -
	PLOT SCALE = 50.00 ' / IN.	CHECKED - MSA	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

WIRING DIAGRAM

SCALE: 1"=50' | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	49
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



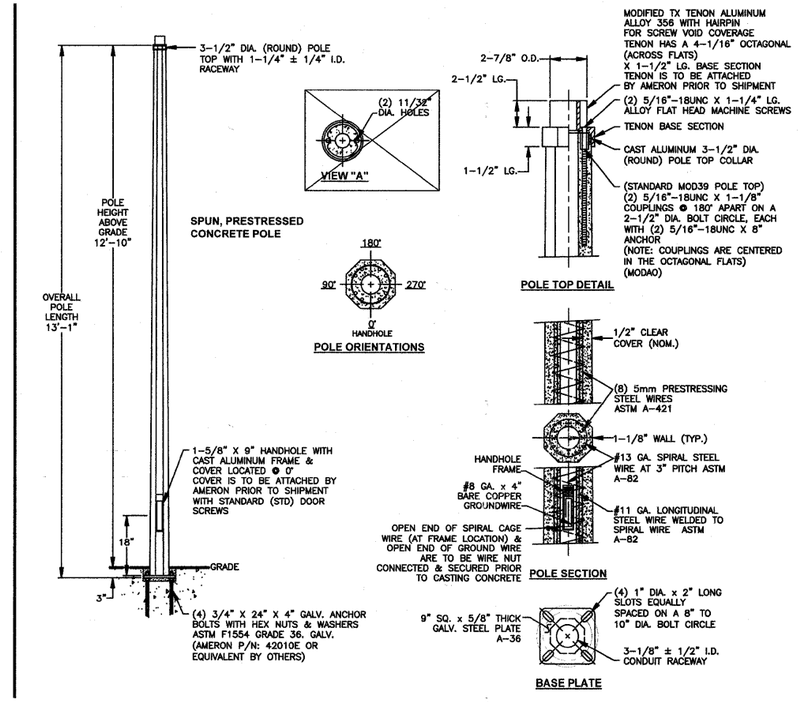
SEO SMALL - EMBEDDED - OCTAGONAL						
POLE DESIG-NATION	POLE HEIGHT ABOVE GROUND	EM-BEDDED DEPTH	OVER-ALL LENGTH	BOTTOM DIAMETER	ULTIMATE G.L. MOMENT (FT. LBS.)	WEIGHT (LBS.)
SEO-4.3	14'-0"	4'-0"	18'-0"	6-3/8"	7.08	290

LOADING

LUMINAIRES
MAXIMUM EFFECTIVE AREA = 7.5 SQ. FT. AT POLE TOP.
MAXIMUM WEIGHT = 70 LBS. AT POLE TOP.
LOADING CALCULATED FOR 104 M.P.H. WINDS.
FOR HIGHER LOADINGS CONSULT CENTRECON.

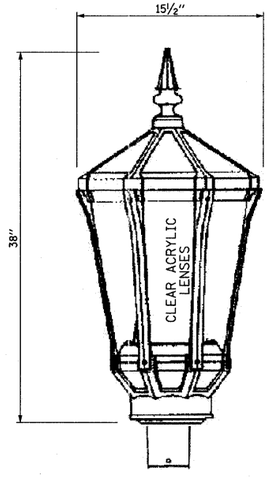
APPEARANCE CODE						
AGGREGATE AND FINISH	CEMENT COLOR					
	GREY	WHITE	BUFF	GREEN	BROWN	BLACK
NATURAL EXPOSED	#113	#213	#313	#413	#513	#613

TYPICAL POLE SECTION
RESIDENTIAL STREET LIGHTING STANDARD

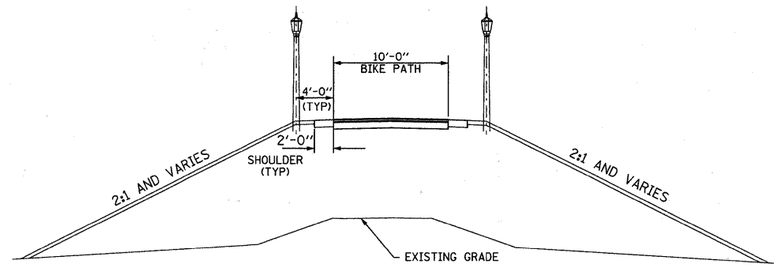


SMALL BASE PLATE OCTAGONAL POLE

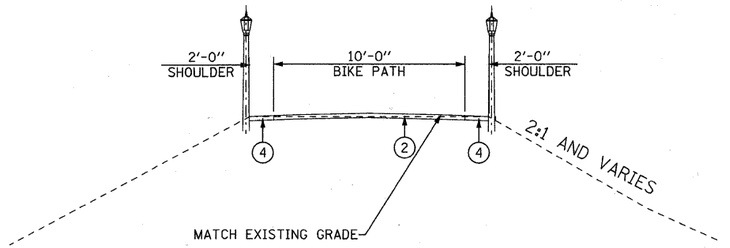
POLE DESIG-NATION	POLE HEIGHT ABOVE GRADE	OVERALL POLE LENGTH	BOLT CIRCLE	BASE O.D.	ULTIMATE G.L. MOMENT (ft. lbs.)	WEIGHT (lbs.)
SB004	12'-10"	13'-1"	10"	5-5/8"	6,960	220



LIGHT FIXTURE DETAIL
N.T.S.



TYPICAL SECTION
GREAT WESTERN TRAIL



TYPICAL SECTION
GREAT WESTERN TRAIL
STA. 28+00.00 TO STA. 33+00.00
NOTE: GRADING AND DISTURBANCE LIMTED TO 14 FOOT WIDTH ALONG ALIGNMENT IN THIS SECTION

NOTE: FOR LIGHT FOUNDATION DETAILS ON STRUCTURE, SEE BRIDGE PLANS.

LTG-05

AMES Engineering, Inc.
CONSULTING ENGINEERS
1341 Warren Avenue
Downers Grove, IL 60515
(630) 737-1987 (t); (630) 470-9891 (f)
www.amesengineeringinc.com

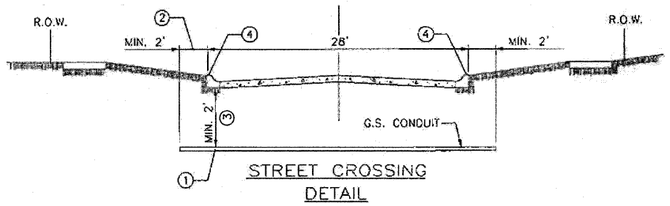
FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\REC'D DRAWINGS\AMES\D1756004-Ltg-05.dgn	USER NAME = cesario	DESIGNED - BL	REVISED -
		DRAWN - RV	REVISED -
	PLOT SCALE = 50.00 ' / IN.	CHECKED - MSA	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

LIGHTING DETAILS

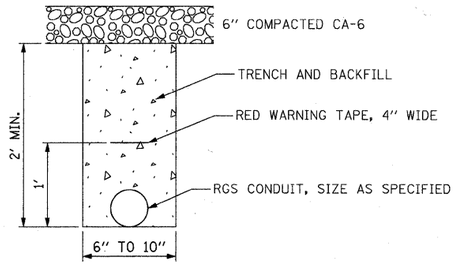
SCALE: N.T.S. | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	50
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



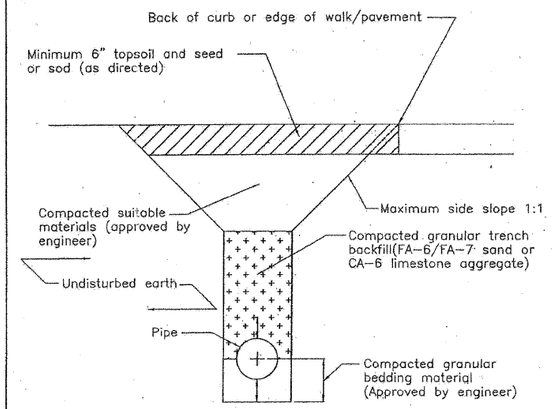
STREET CROSSING DETAIL

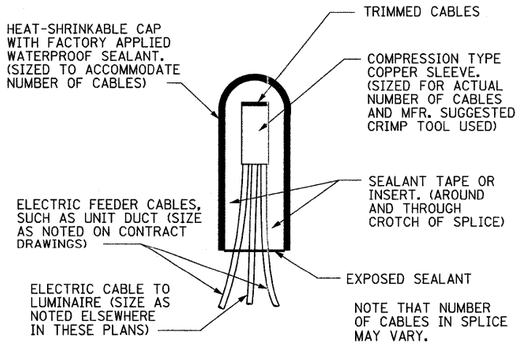
① CONDUIT SHALL BE HEAVY WALL RIGID G.S. CONDUIT.
② CONDUIT SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
③ CONDUIT SHALL BE A MINIMUM OF 2 FT. BELOW BOTTOM OF CURB.
④ CHISEL MARK IN TOP BACK OF CONCRETE CURB AT LOCATION OF CROSSING.



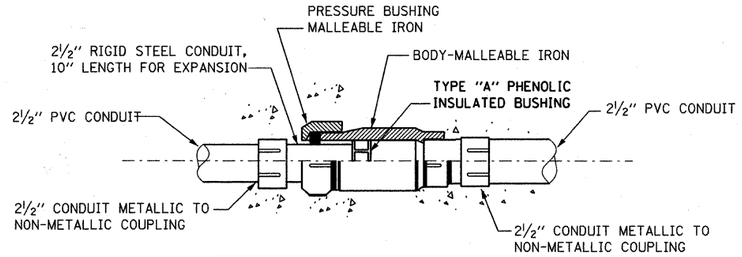
PATH CROSSING RESTORATION
(IF NECESSARY)
N.T.S.

DUPAGE COUNTY DIVISION OF TRANSPORTATION TRENCH BACKFILL STANDARD IN NON-PAVED AREAS (PARKWAYS, ETC.)



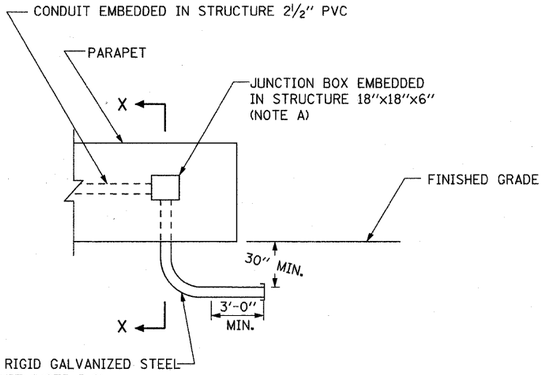


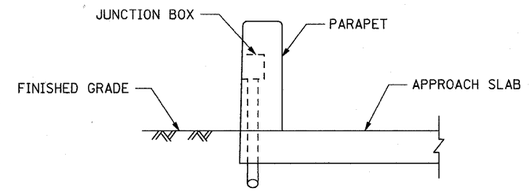
SPLICING DETAIL



NOTE:
ALL CONDUIT FITTINGS, AND COUPLINGS SHALL BE INCLUDED IN THE COST OF CONCRETE SUPERSTRUCTURE

CONDUIT EXPANSION FITTING
USE O-Z GEDNEY AX-8-250,
OR APPROVED EQUAL





SECTION X-X

JUNCTION BOX EMBEDDED IN STRUCTURE

NOTES:

A. JUNCTION BOX SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATION IS REQUIRED WITH BRIDGE CONTRACTOR.

B. CONDUIT EMBEDDED IN STRUCTURE SHALL BE FURNISHED AND INSTALLED BY THE BRIDGE CONTRACTOR. COORDINATION WITH THE ELECTRIC CONTRACTOR IS REQUIRED. COORDINATE CONDUIT PLACEMENT TO TERMINATE OUTSIDE OF PAVEMENT.

C. COST OF GALVANIZED STEEL RACEWAY SHALL BE INCLUDED WITH JUNCTION BOX EMBEDDED IN STRUCTURE.

LTG-06

AMES Engineering, Inc.
CONSULTING ENGINEERS
1341 Warren Avenue
Downers Grove, IL 60515
(630) 737-1987 (t); (630) 470-9881 (f)
www.amesengineeringinc.com

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase	USER NAME = cesario	DESIGNED - BL	REVISED -
	I:\REC'D DRAWINGS\AMES\D1756004-Ltg-06.dgn	DRAWN - RV	REVISED -
	PLOT SCALE = 50.00 ' / IN.	CHECKED - MSA	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

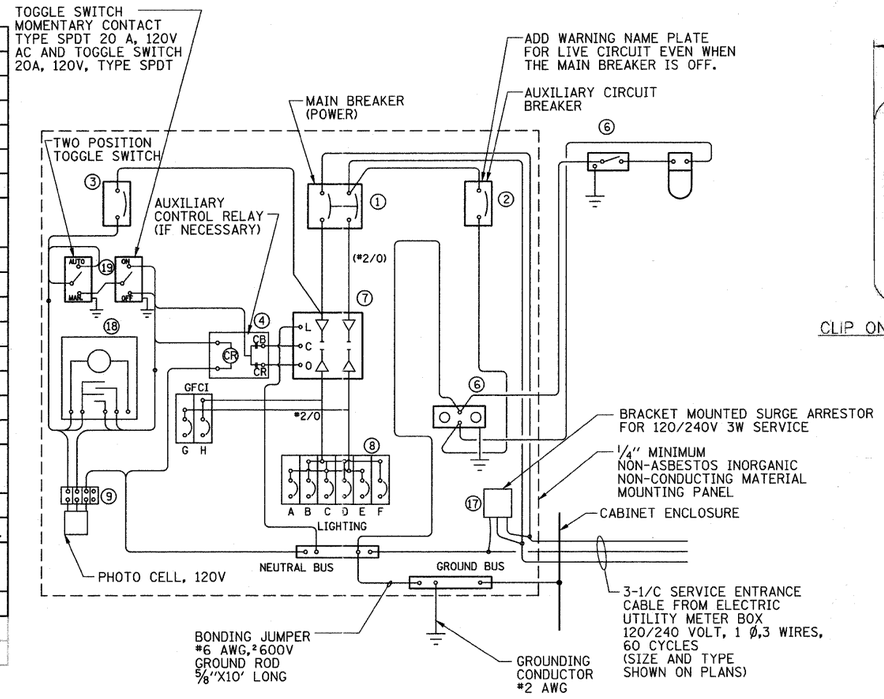
STATE OF ILLINOIS
GREAT WESTERN TRAIL

LIGHTING DETAILS

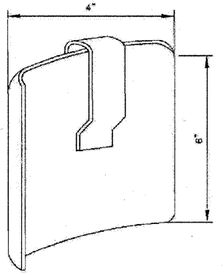
SCALE: N.T.S. | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	51
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

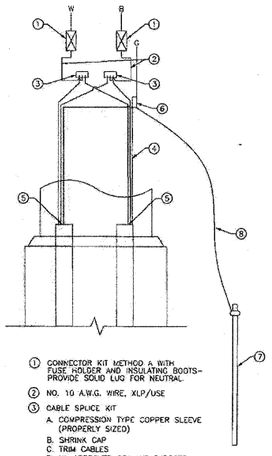
LIGHTING CONTROLLER COMPONENT SCHEDULE (2X)	
ITEM	SPECIFICATION OR EQUAL
1 MAIN CIRCUIT BREAKER	200 AMPERE, 2 POLE, 240 VOLT RATING
2 LAMPHOLDER CIRCUIT BREAKER	15 AMPERE, 1 POLE, 120 VOLT RATING
3 CONTROL SWITCH CIRCUIT BREAER	15 AMPERE, 1 POLE, 120 VOLT RATING
4 AUXILLARY RELAY	120 VOLT SPST 60 HZ COIL
5	
6 LAMPHOLDER AND OUTLET	120 VOLT SWITCHED LAMPHOLDER AND 15 AMP GFI DUPLEX RECEPTACLE
7 REMOTE CONTROL SWITCH	200 AMPERE, 2 POLE, 240 VOLT RATING
8 BRANCH LINE CIRCUIT BREAKERS	CIRCUITS: 30 AMP, 1 POLE, 120 VOLT RATING
9 FOUR POINT TERMINAL BLOCK	600 VOLT
10 SERVICE CABLES	3- 600 VOLT (XLP-TYPE USE) NO. 3/0
11 LAMPHOLDER WIRE	2- 600 VOLT XLP NO. 10
12 CONTROL WIRE	2- 600 VOLT XLP NO. 10
13 BRANCH LINE CABLES	SEE PLANS FOR SIZE
14 PHOTOELECTRIC CONTROL WIRE	2- 600 VOLT XLP NO. 10
15 LIGHTING POLE WIRE	2- 600 VOLT THHN NO. 10 CABLES WITH POLE GROUND AND FUSING
16	
17 LIGHTING ARRESTOR	JOSLYN Z2-650-0 WITH MOUNTING BRACKET OR EQUAL
18 TIME CLOCK	SOLID STATE, ASTRONOMICAL BATTERY OPERATED CARRYOVER, 120V, 10 AMPS PER POLE
19 MAN-AUTO-OFF CONTROL SWITCH	15 AMPERE, 3 POLE, 120 VOLT RATING
PHOTOCELL TO BE BUTTON TYPE MOUNTED ABOVE DOOR IN ROOF FACING DOWN	



WIRING DIAGRAM



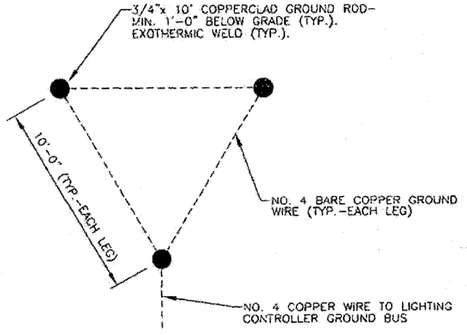
CLIP ON HOUSE SIDE SHIELD DETAIL
N.T.S.



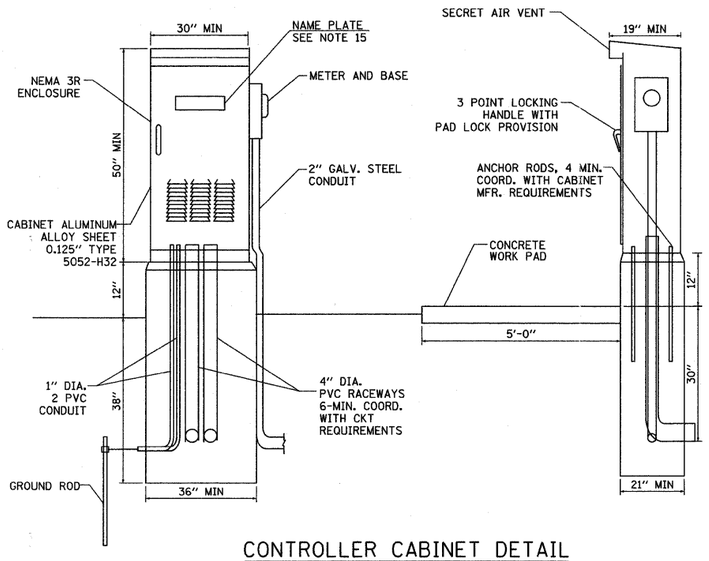
POLE HANDHOLE WIRING DIAGRAM

NOTE:

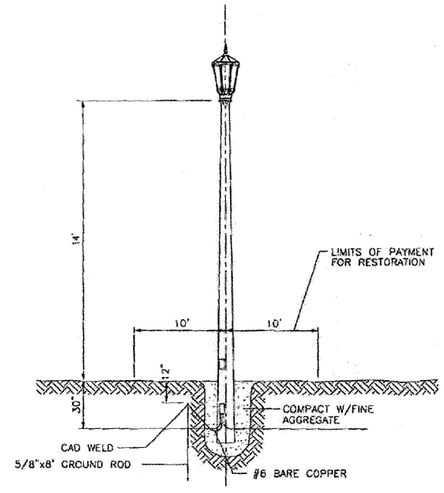
ALL CONDUCTORS IN THE UNIT DUCT RUNS SHALL HAVE INDIVIDUALLY COLOR-CODED INSULATION THROUGHOUT THE ENTIRE LENGTH OF THE CONDUCTOR. THE COLOR IDENTIFICATION FOR THE SYSTEM GROUND SHALL BE GREEN. THE PHASE CONDUCTORS SHALL BE IN ACCORDANCE WITH STANDARD I.D.O.T. PRACTICES FOR WIRING MULTICONDUCTOR CIRCUITS IN SINGLE UNIT DUCT RUNS.



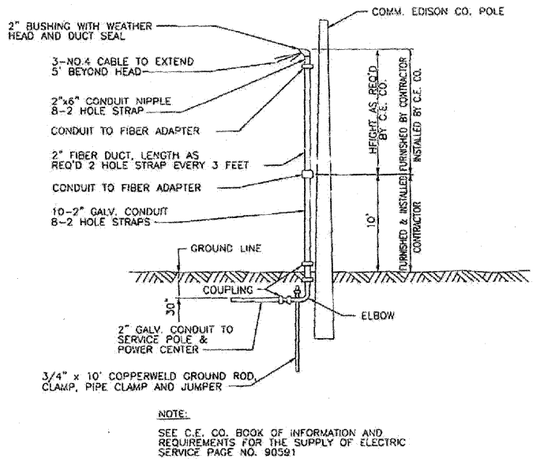
GROUND GRID DETAIL (TYP.)



CONTROLLER CABINET DETAIL



POLE INSTALLATION DETAIL



C.E. CO. OVERHEAD CONNECTION POLE

LTG-07

AMES Engineering, Inc.
CONSULTING ENGINEERS
1341 Warren Avenue
Downers Grove, IL 60515
(630) 737-1587 (t); (630) 470-9891 (f)
www.amesengineeringinc.com

FILE NAME = W:\756-004_Lombard - GWT Bridges Phase II\REC'D DRAWINGS\AMES\D1756004-Ltg-07.dgn	USER NAME = cesario	DESIGNED - BL	REVISED -
		DRAWN - RV	REVISED -
	PLOT SCALE = 50.00 ' / IN.	CHECKED - MSA	REVISED -
	PLOT DATE = 7/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL

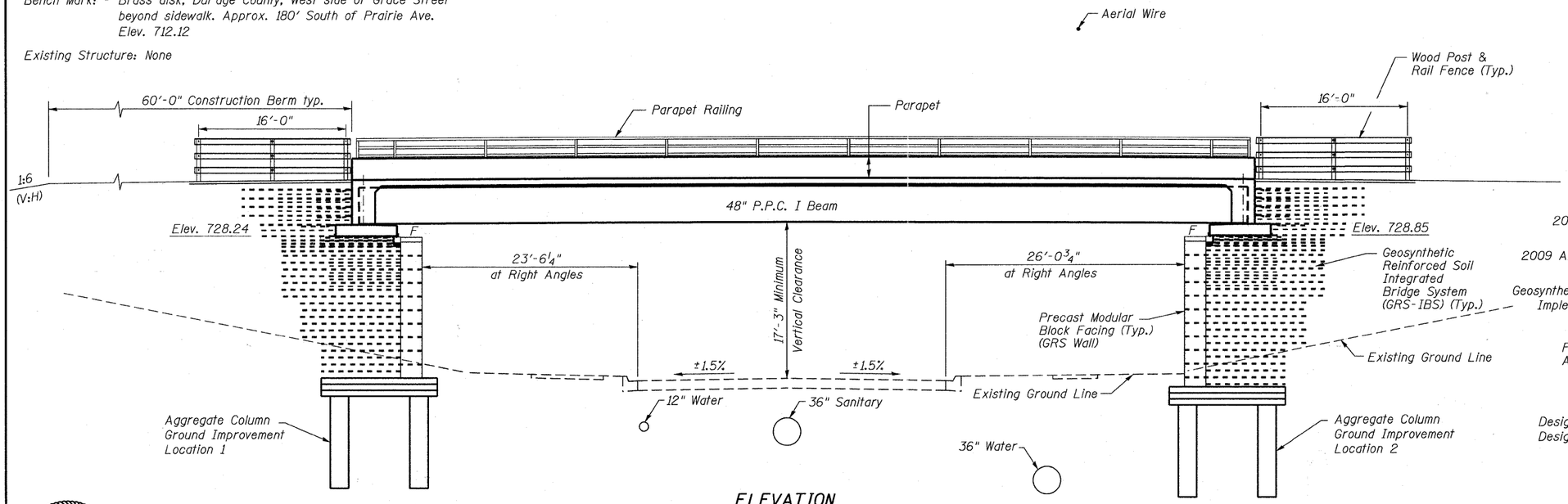
LIGHTING DETAILS

SCALE: N.T.S. | SHEET NO. | SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	52
	CONTRACT NO. 63568			
	ILLINOIS FED. AID PROJECT			

Bench Mark: - Brass disk, DuPage County, West side of Grace Street beyond sidewalk. Approx. 180' South of Prairie Ave. Elev. 712.12

Existing Structure: None



ELEVATION

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" ϕ low lax. strands)
fpbt = 201,960 psi (1/2" ϕ low lax. strands)
f'c Precast Modular Blocks = See Special Provisions

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

2009 AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges

Geosynthetic Reinforced Soil Integrated Bridge System Interim Implementation Guide, FHWA-HRT-11-026, January 2011

LOADING H20

Pedestrian Live Load 90#/sq. ft.
Allow 25#/sq. ft. for future wearing surface.

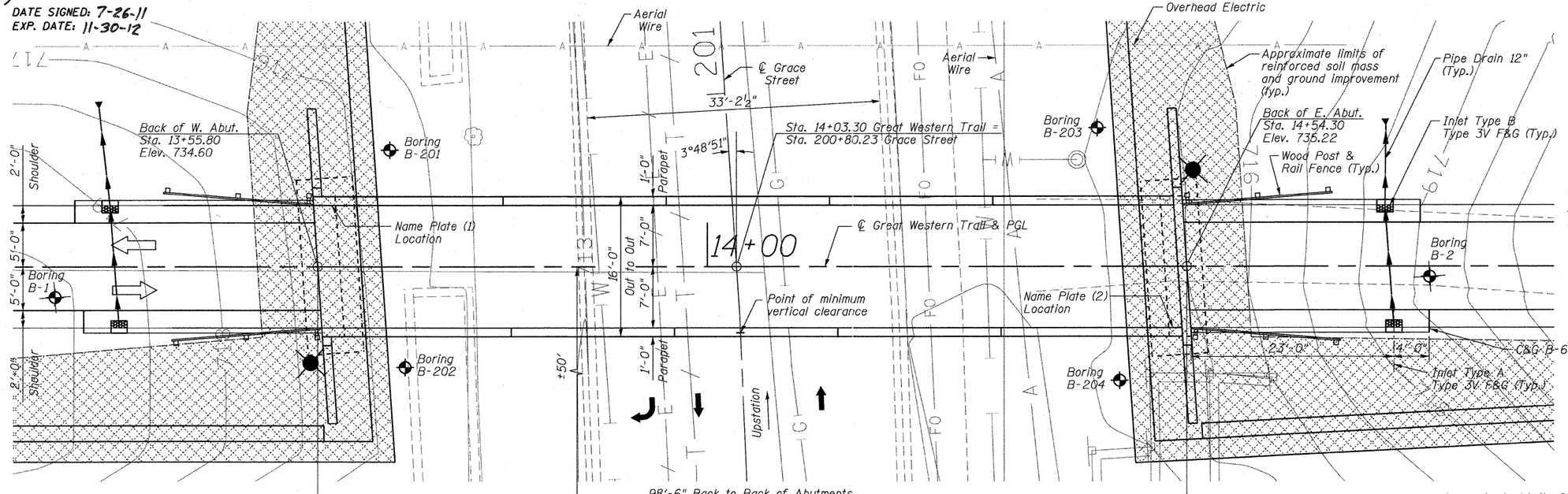
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.087
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.154
Soil Site Class = D

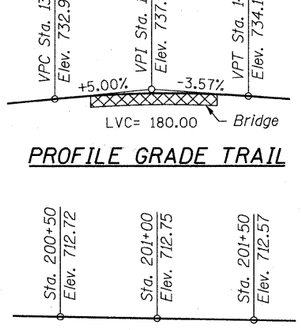
STATE OF ILLINOIS · JOEL A. TROPP · LICENSED STRUCTURAL ENGINEER · 5051 · ITASCA

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design Specifications."

DATE SIGNED: 7-26-11
EXP. DATE: 11-30-12

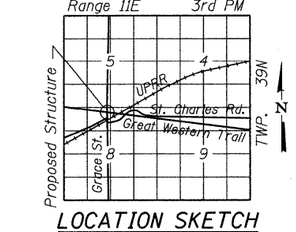


PLAN



PROFILE GRADE TRAIL

PROFILE GRADE GRACE STREET



LOCATION SKETCH

Approximate Limit of Aggregate Column Ground Improvement & Reinforced Soil Mass

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -
		CHECKED SRT	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

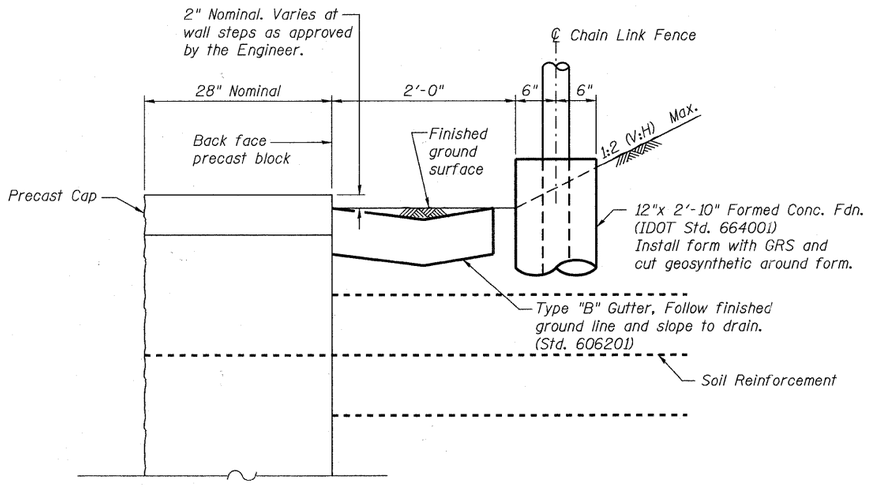
GENERAL PLAN
STRUCTURE NUMBER 022-3120
SHEET NO. 1 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	53
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

FILE NAME = w:\756-004_lombard - get bridges phase 1\cadd sheets\structural\grace\022312B-001-GeneralPlanGrace.dgn

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	154	-	154
Structure Excavation	Cu. Yd.	-	510	510
Concrete Structures	Cu. Yd.	-	21.0	21.0
Concrete Superstructure	Cu. Yd.	59.3	-	59.3
Furnishing And Erecting Precast Prestressed Concrete I-Beams, 48 In.	Foot	389	-	389
Reinforcement Bars, Epoxy Coated	Pound	12,480	3,560	16,040
Parapet Railing	Foot	197	-	197
Name Plates	Each	2	-	2
Anti-Graffiti Protection System	Sq. Ft.	1,380	5,450	6,830
Form Liner Textured Surface, Special	Sq. Ft.	750	120	870
Aggregate Column Ground Improvement, Location 1	L. Sum	-	1	1
Aggregate Column Ground Improvement, Location 2	L. Sum	-	1	1
Precast Modular Block	Sq. Ft.	-	4,440	4,440
Geosynthetic Reinforced Soil	Sq. Ft.	-	4,440	4,440
Reinforced Soil Foundation	Foot	-	327	327
GRS Backfill Material	Cu. Yd.	-	1,093	1,093
Concrete Superstructure, Special	Cu. Yd.	17.0	-	17.0
Architectural Lettering	L. Sum	0.5	-	0.5



SECTION THRU TOP OF WALL

GENERAL NOTES

Alternative bridge types not allowed.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Anti-Graffiti Protection System shall be applied at all locations "Form Liner Textured Surface Coating, Special" is applied to and to precast modular block facing. See Special Provisions.

Exterior faces of fascia beams shall receive Anti-Graffiti Protection System for a distance equal to 10' from the face of abutments.

Slipforming of the parapets is not allowed.

See GRS-IBS notes for construction sequence.

See Sheets 43 thru 45 of 201 for fence details.

INDEX OF SHEETS

GRACE STREET
BUILT 20__ BY
VILLAGE OF LOMBARD
SEC. 06-00151-00-BR
STA. 14+05.05
STR. NO. 022-3120 LOADING H20

2-Required

NAME PLATE
See Std. 515001

FILE NAME = W:\756-004-Lombard - GWT Bridges Phase II\CADD Sheets\Structural\GRACE\022312O-002-GenNotesTBill.dgn

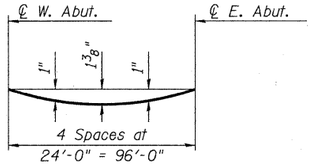
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED JJI	REVISED -	
	CHECKED SRT	REVISED -	
PLOT SCALE =	DRAWN GM	REVISED -	
PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

GENERAL NOTES, TOTAL BILL OF MATERIAL AND INDEX OF SHEETS
STRUCTURE NUMBER 022-3120
SHEET NO. 2 OF 25 SHEETS

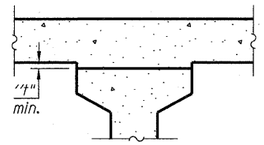
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	54
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



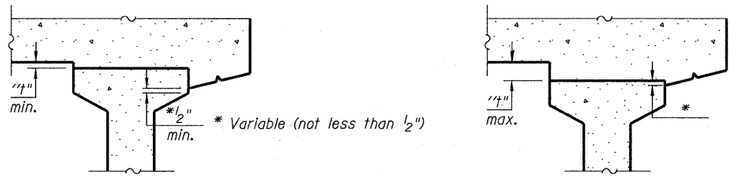
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



INTERIOR BEAMS



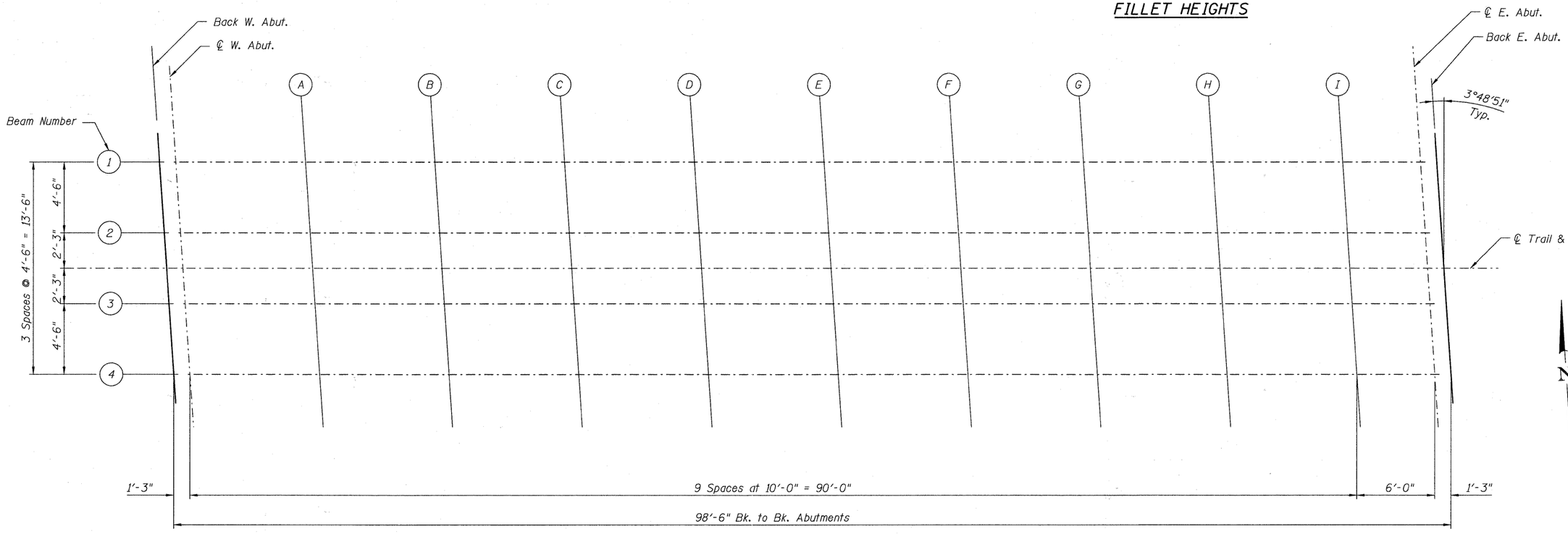
At Minimum Fillet

At Maximum Fillet

EXTERIOR BEAMS

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the plans. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN

FILE NAME = w:\756-0824_lombard - gwt bridges phase 1\cadd sheets\structural\grace\022312B-003-TOPOFSLABELEV.dgn 1.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	TOP OF SLAB ELEVATIONS I STRUCTURE NO. 022-3120	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED SRT	REVISED -				06-00151-00-BR	DuPAGE	201	55
	PLOT SCALE =	DRAWN GM	REVISED -					CONTRACT NO. 63568		
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		SHEET NO. 3 OF 25 SHEETS		ILLINOIS	FED. AID PROJECT		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	1355.35	6.75 Lt.	734.44	734.44
CL Brg W. Abut.	1356.60	6.75 Lt.	734.48	734.48
A	1366.60	6.75 Lt.	734.75	734.79
B	1376.60	6.75 Lt.	734.97	735.06
C	1386.60	6.75 Lt.	735.14	735.26
D	1396.60	6.75 Lt.	735.27	735.41
E	1406.60	6.75 Lt.	735.35	735.49
F	1416.60	6.75 Lt.	735.38	735.52
G	1426.60	6.75 Lt.	735.37	735.47
H	1436.60	6.75 Lt.	735.30	735.37
I	1446.60	6.75 Lt.	735.19	735.22
CL Brg. E. Abut.	1452.60	6.75 Lt.	735.10	735.10
Bk. E. Abut.	1453.85	6.75 Lt.	735.08	735.08

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	1355.65	2.25 Lt.	734.54	734.54
CL Brg W. Abut.	1356.90	2.25 Lt.	734.58	734.58
A	1366.90	2.25 Lt.	734.85	734.89
B	1376.90	2.25 Lt.	735.07	735.16
C	1386.90	2.25 Lt.	735.24	735.36
D	1396.90	2.25 Lt.	735.37	735.51
E	1406.90	2.25 Lt.	735.45	735.59
F	1416.90	2.25 Lt.	735.48	735.61
G	1426.90	2.25 Lt.	735.46	735.57
H	1436.90	2.25 Lt.	735.40	735.47
I	1446.90	2.25 Lt.	735.28	735.31
CL Brg. E. Abut.	1452.90	2.25 Lt.	735.19	735.19
Bk. E. Abut.	1454.15	2.25 Lt.	735.17	735.17

℄ TRAIL & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	1355.80	0.00	734.60	734.60
CL Brg W. Abut.	1357.05	0.00	734.63	734.63
A	1367.05	0.00	734.90	734.95
B	1377.05	0.00	735.12	735.21
C	1387.05	0.00	735.29	735.41
D	1397.05	0.00	735.42	735.56
E	1407.05	0.00	735.50	735.64
F	1417.05	0.00	735.53	735.66
G	1427.05	0.00	735.51	735.62
H	1437.05	0.00	735.44	735.51
I	1447.05	0.00	735.33	735.36
CL Brg. E. Abut.	1453.05	0.00	735.24	735.24
Bk. E. Abut.	1454.30	0.00	735.22	735.22

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	1355.95	2.25 Rt.	734.55	734.55
CL Brg W. Abut.	1357.20	2.25 Rt.	734.59	734.59
A	1367.20	2.25 Rt.	734.86	734.90
B	1377.20	2.25 Rt.	735.08	735.16
C	1387.20	2.25 Rt.	735.25	735.37
D	1397.20	2.25 Rt.	735.37	735.51
E	1407.20	2.25 Rt.	735.45	735.59
F	1417.20	2.25 Rt.	735.48	735.61
G	1427.20	2.25 Rt.	735.46	735.57
H	1437.20	2.25 Rt.	735.39	735.46
I	1447.20	2.25 Rt.	735.28	735.31
CL Brg. E. Abut.	1453.20	2.25 Rt.	735.19	735.19
Bk. E. Abut.	1454.45	2.25 Rt.	735.17	735.17

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut	1356.25	6.75 Rt.	734.47	734.47
CL Brg W. Abut.	1357.50	6.75 Rt.	734.50	734.50
A	1367.50	6.75 Rt.	734.77	734.81
B	1377.50	6.75 Rt.	734.99	735.07
C	1387.50	6.75 Rt.	735.16	735.28
D	1397.50	6.75 Rt.	735.28	735.42
E	1407.50	6.75 Rt.	735.36	735.50
F	1417.50	6.75 Rt.	735.38	735.52
G	1427.50	6.75 Rt.	735.36	735.47
H	1437.50	6.75 Rt.	735.30	735.37
I	1447.50	6.75 Rt.	735.18	735.21
CL Brg. E. Abut.	1453.50	6.75 Rt.	735.09	735.09
Bk. E. Abut.	1454.75	6.75 Rt.	735.07	735.07

FILE NAME = w:\795-2004.lombard - gw's bridges phase ii\cadd sheets\structural\grace\022320-2004-TOPOFSLABELEVdgn IIdgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

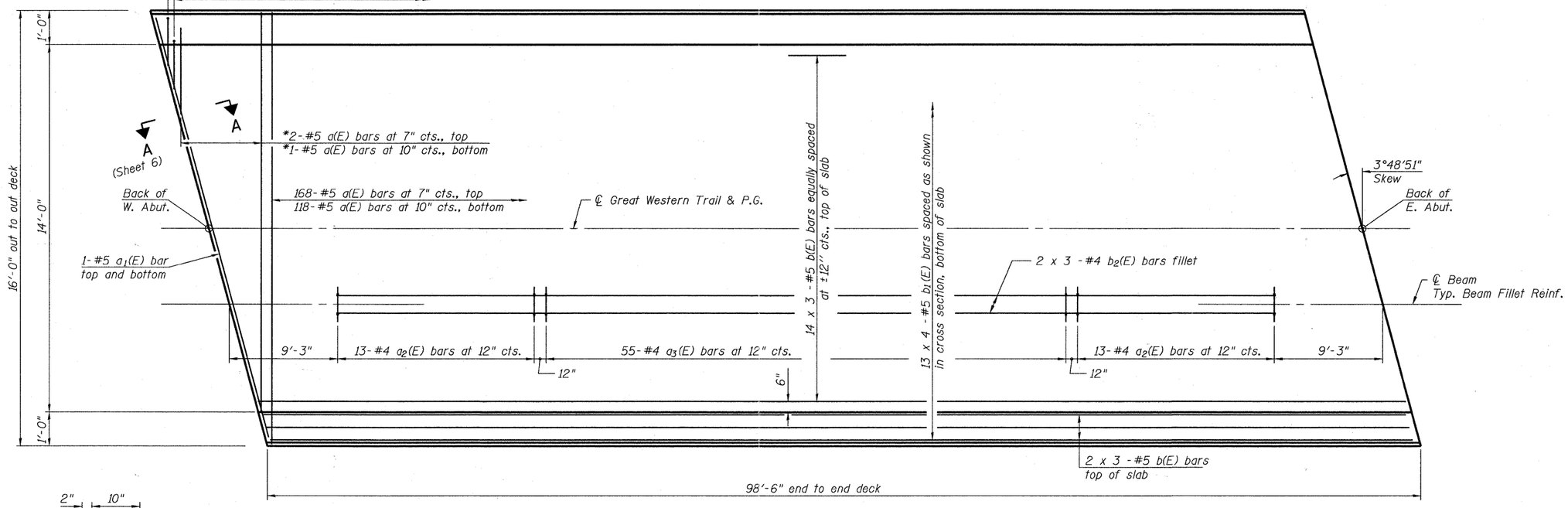
USER NAME = gonzalo	DESIGNED JJI	REVISED -
	CHECKED SRT	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

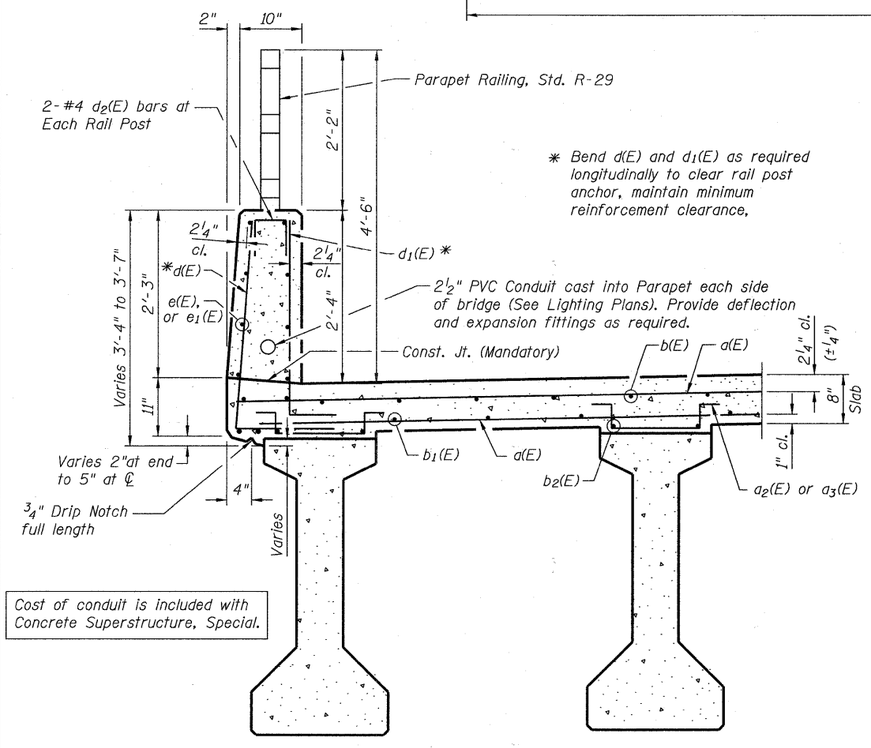
TOP OF SLAB ELEVATIONS II
STRUCTURE NO. 022 3120
SHEET NO. 4 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	56
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

* Order d(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



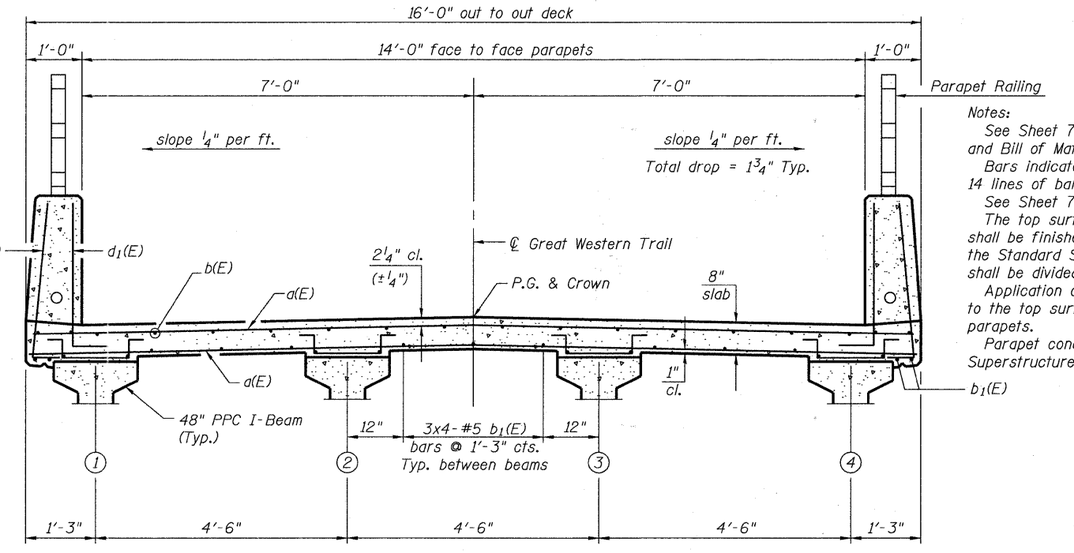
PLAN



* Bend d(E) and d1(E) as required
longitudinally to clear rail post
anchor, maintain minimum
reinforcement clearance.

Cost of conduit is included with
Concrete Superstructure, Special.

SECTION THRU PARAPET



CROSS SECTION

(Looking West)

Notes:

See Sheet 7 of 25 for superstructure details and Bill of Material.

Bars indicated thus 14 x 3-#5 etc. indicates 14 lines of bars with 3 lengths per line.

See Sheet 7 of 25 for parapet reinforcement.

The top surface of the deck between Parapets shall be finished according to Article 423.06 of the Standard Specifications, except the surface shall be divided by grooves.

Application of Protective Coat shall be limited to the top surface of the bridge deck between parapets.

Parapet concrete to be paid for as Concrete Superstructure, Special.

MIN. BAR LAP

#5 bar = 3'-3"
#4 bar = 2'-7"

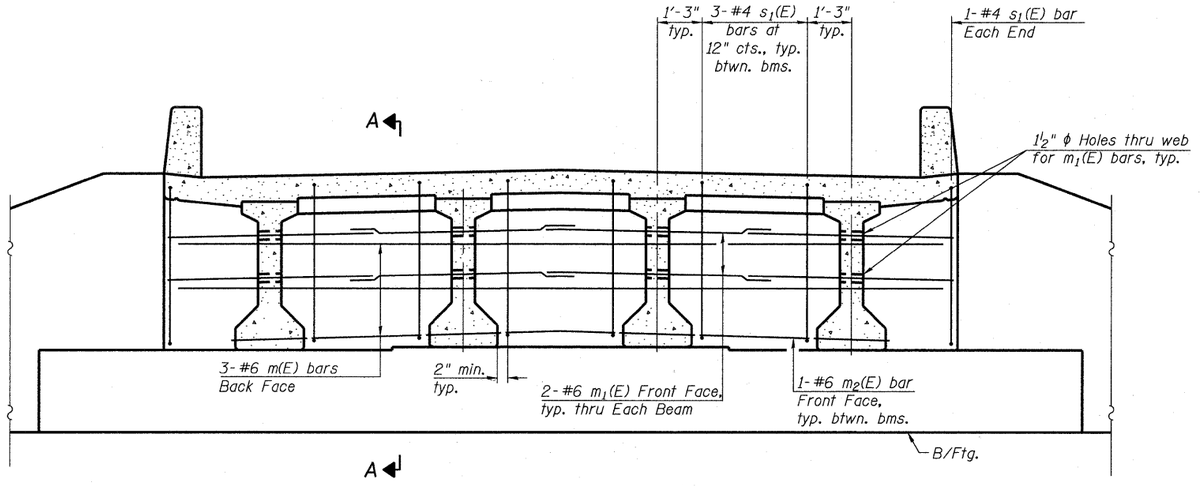
FILE NAME = w:\756-004_lombard - gwt bridges phase ii\cadd sheets\structural\gracest\022312d-005-SUPSTRUCPLAN.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJT	REVISED -
		CHECKED SRT	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

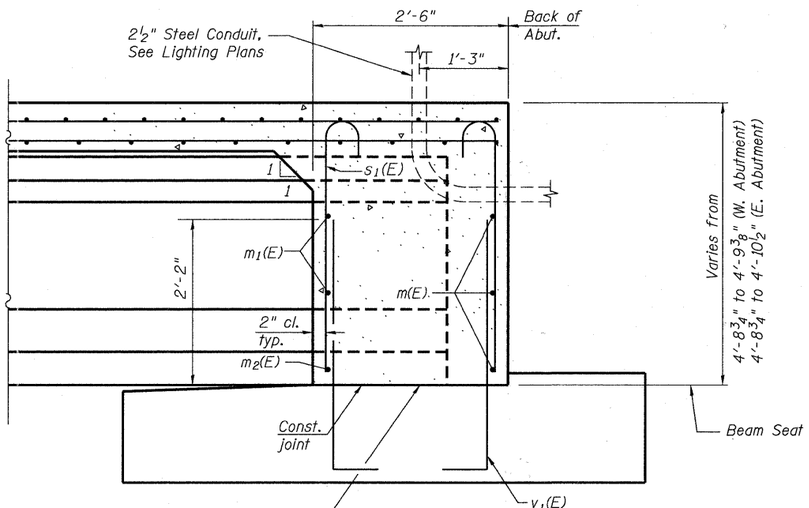
STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

SUPERSTRUCTURE PLAN AND SECTION
STRUCTURE NO. 022-3120
SHEET NO. 5 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	57
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



DIAPHRAGM ELEVATION AT ABUTMENT



Beam ends shall be set on an initial $\frac{1}{2}$" Min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

Dimensions at right angles to abutment, except as shown.

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 7 of 25.

Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 25.

For details of bar v_1(E), see sheet 12 & 13 of 25.

The s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

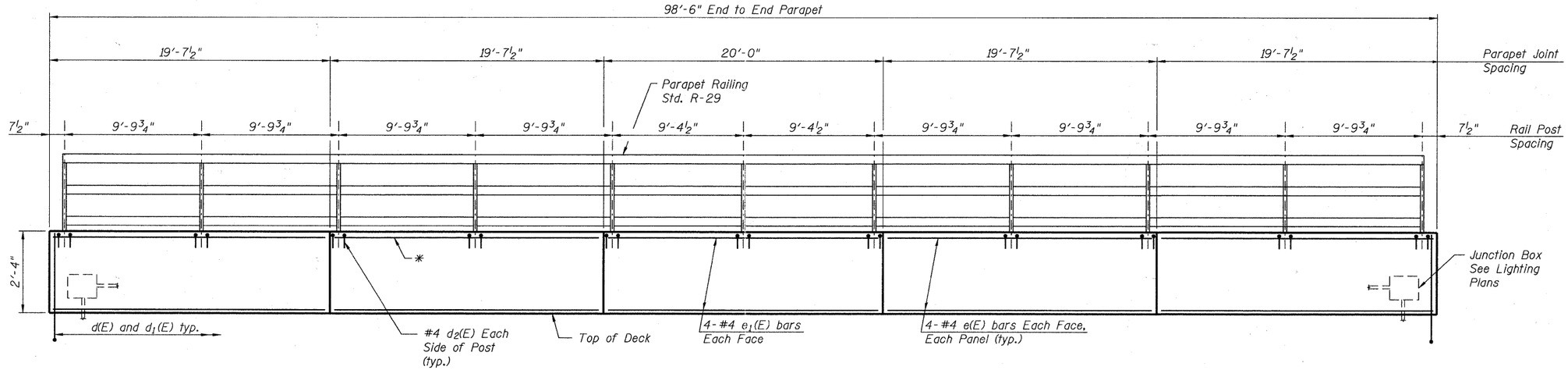
MIN. BAR LAP

#6 bar = 3'-4"

FILE NAME = w:\756-004_lombard - gst bridges phase 1\cadd sheets\structural\grace\022312O-006-DIPHRAGMNODETAIL.sdgn.dgn

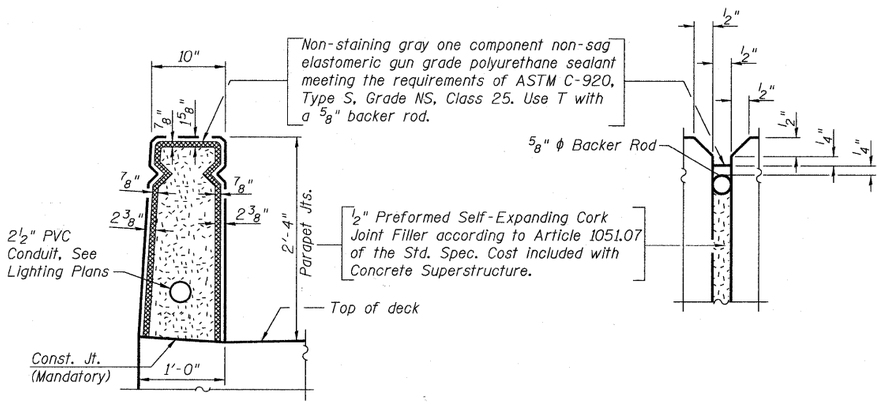
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	INTEGRAL ABUTMENT DIAPHRAGM DETAILS STRUCTURE NUMBER 022-3120
		CHECKED SRT	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		SHEET NO. 6 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	58
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

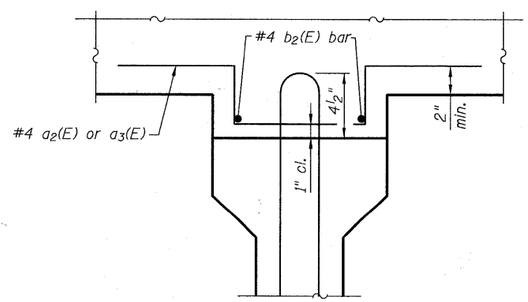


INSIDE ELEVATION OF PARAPET

* Locate top row of longitudinal parapet reinforcement clear of rail post anchors, maintain minimum reinforcement clearance.



PARAPET JOINT DETAILS



FILLET REINFORCEMENT DETAIL

BAR d1(E)

BAR s1(E)

BAR d2(E)

BAR d(E)

BARS a2(E) & a3(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	289	#5	15'-8"	
d1(E)	4	#5	15'-9"	
d2(E)	104	#4	3'-3"	
d3(E)	220	#4	3'-7"	
b(E)	54	#5	35'-0"	
b1(E)	52	#5	27'-1"	
b2(E)	24	#4	28'-6"	
d(E)	200	#4	3'-9"	
d1(E)	200	#6	4'-9"	
d2(E)	44	#4	2'-0"	
e(E)	64	#4	19'-4"	
e1(E)	8	#4	19'-8"	
m(E)	6	#6	15'-8"	
m1(E)	16	#6	7'-11"	
m2(E)	6	#6	2'-4"	
s1(E)	22	#4	12'-1"	
Reinforcement Bars, Epoxy Coated		Lbs.	12,480	
Concrete Superstructure		Cu. Yd.	59.3	
Anti-Graffiti Protection System		Sq. Ft.	1,380	
Protective Coat		Sq. Yd.	154	
Form Liner Textured Surface, Special		Sq. Ft.	750	
Concrete Superstructure, Special		Cu. Yd.	17.0	

FILE NAME = w:\756-084_lombard - gwt bridges phase 1\cadd sheets\structural\grace\022312B-007-PARAPETELEV.dgn

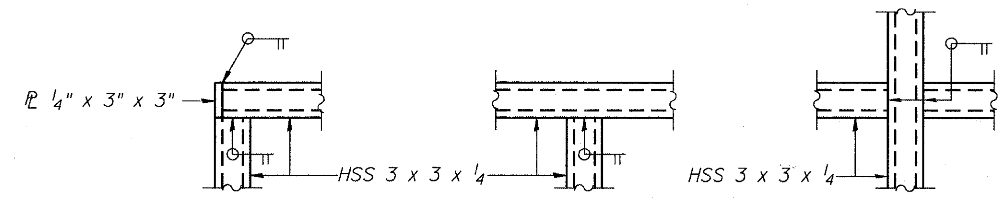
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED JJI	REVISED -
	CHECKED SRT	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

PARAPET ELEVATION AND SUPERSTRUCTURE DETAILS
STRUCTURE NO. 022-3120
SHEET NO. 7 OF 25 SHEETS

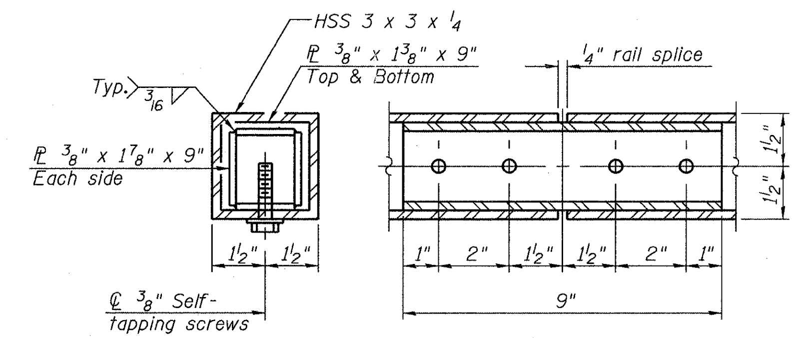
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	59
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



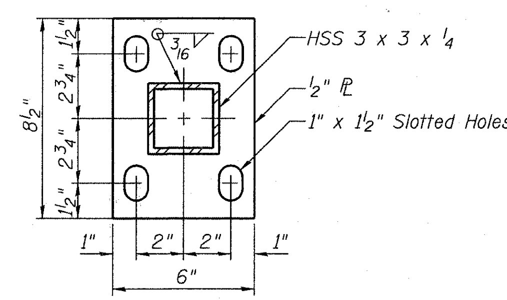
DETAIL A   DETAIL B   DETAIL C

Notes:

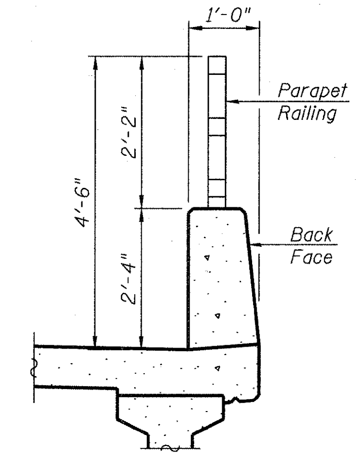
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



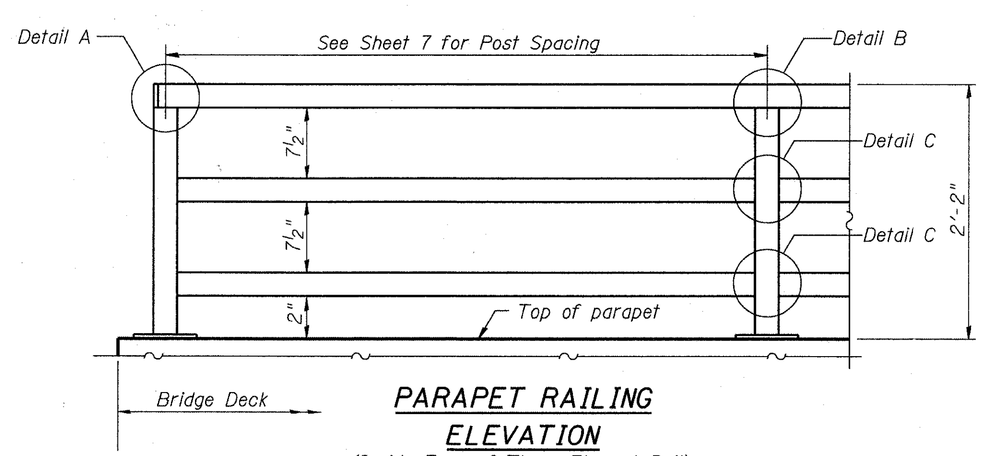
RAIL SPLICE



BASE ℘

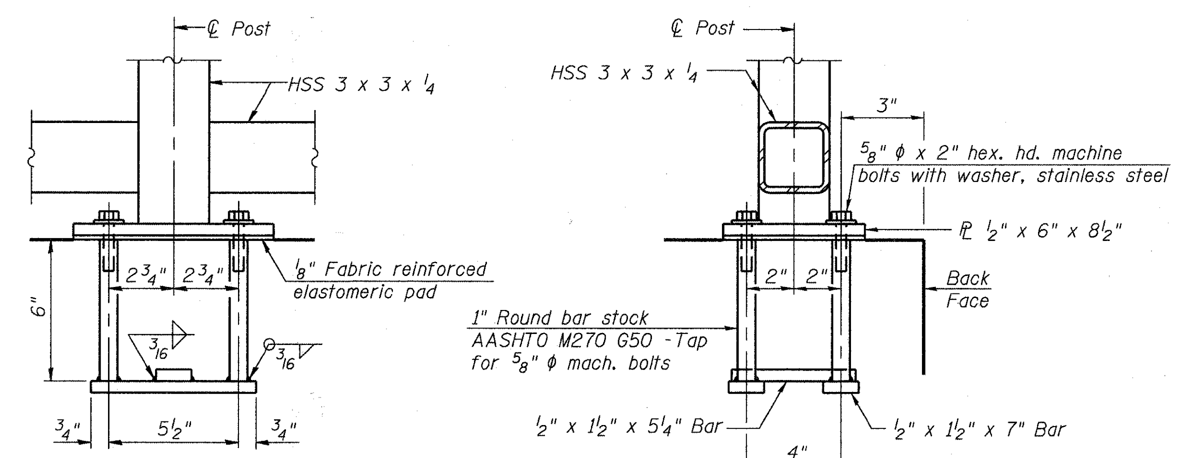


SECTION THRU DECK



PARAPET RAILING ELEVATION

(Inside Face of Three Element Rail)



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications, except anchor rod assemblies shall be stainless steel. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing	Foot	197

FILE NAME = w:\756-004_lombard - gwt bridges phase ii\cadd sheets\structural\grace\0223120-008-PARAPETRAILING.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS

USER NAME = gonzalo | PLOT SCALE = | PLOT DATE = 7/26/2011

DESIGNED JJI | CHECKED SRT | DRAWN GM | CHECKED SRT

REVISED - | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

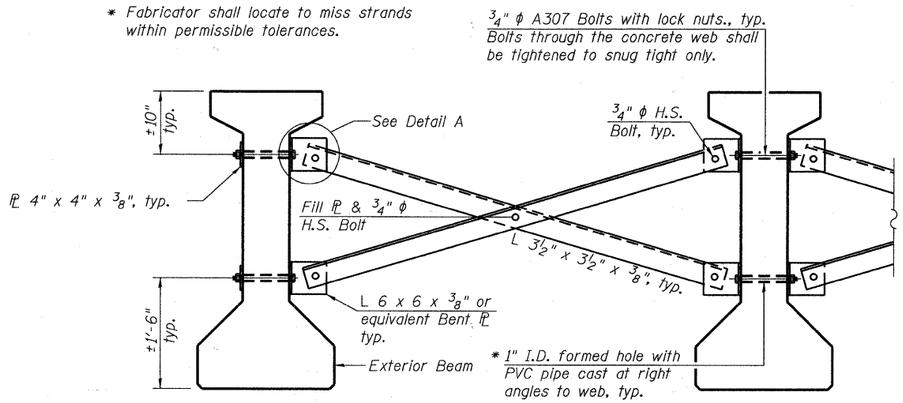
PARAPET RAILING DETAILS
STRUCTURE NO. 022-3120

SHEET NO. 8 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	60

CONTRACT NO. 63568

ILLINOIS FED. AID PROJECT



Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.

Two hardened washers are required for each set of oversized holes.

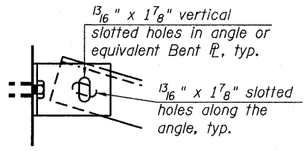
All holes shall be 15/16" ϕ unless otherwise noted.

5/16" x 3" x 3" plate washers are required over all slotted holes.

All bolts shall be galvanized according to AASHTO M232.

Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.



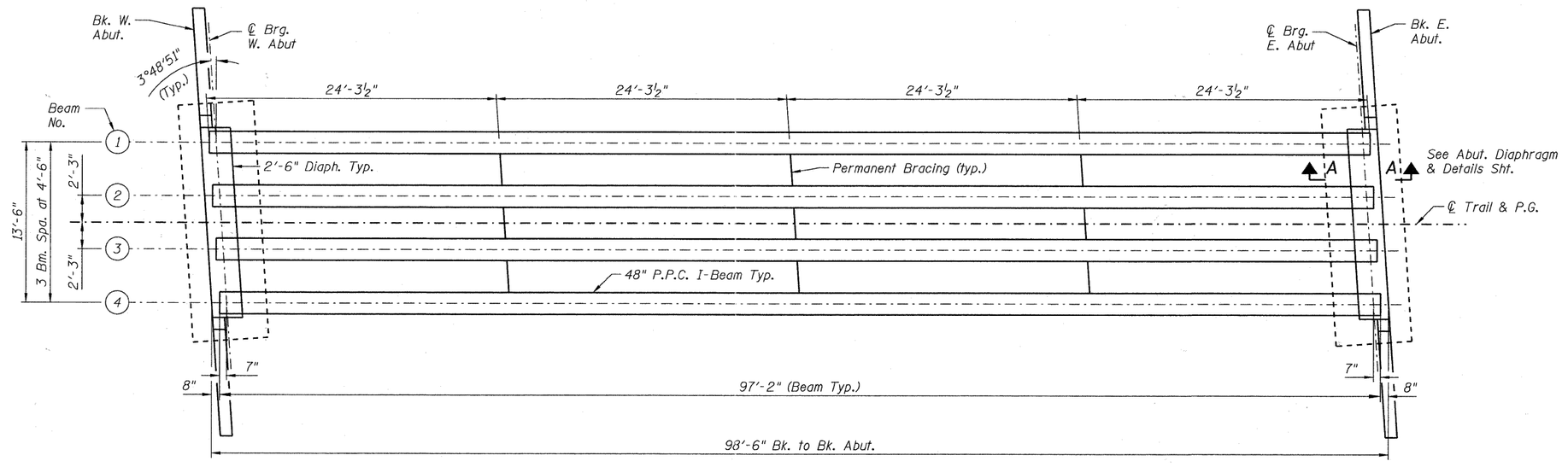
DETAIL A

INTERIOR BEAM MOMENT TABLE		
		0.5 Sp. 1
I	(in^4)	114,117
I'	(in^4)	363,952
S_b	(in^3)	6,834
S_b'	(in^3)	11,064
S_t	(in^3)	5,355
S_t'	(in^3)	24,095
DC1	(k/')	1.08
M_{DC1}	('k)	1240
DC2	(k/')	0.20
M_{DC2}	('k)	225
DW	(k/')	0.09
M_{DW}	('k)	101
M_{LL}	('k)	394

INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	51.6
R_{DC2}	(k)	9.4
R_{DW}	(k)	4.2
R_{LL}	(k)	25.4
R_{Total}	(k)	90.6

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_b': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_t: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
S_t': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
M_{LL}: Un-factored live load moment without dynamic load allowance (impact) (kip-ft.).

PERMANENT BRACING DETAILS FOR 48" PPC I-BEAMS



PLAN

FILE NAME = w:\756-084_lombard - gwt bridges phase 1\cadd sheets\structural\grace\022320-003-FramingPlan.dgn

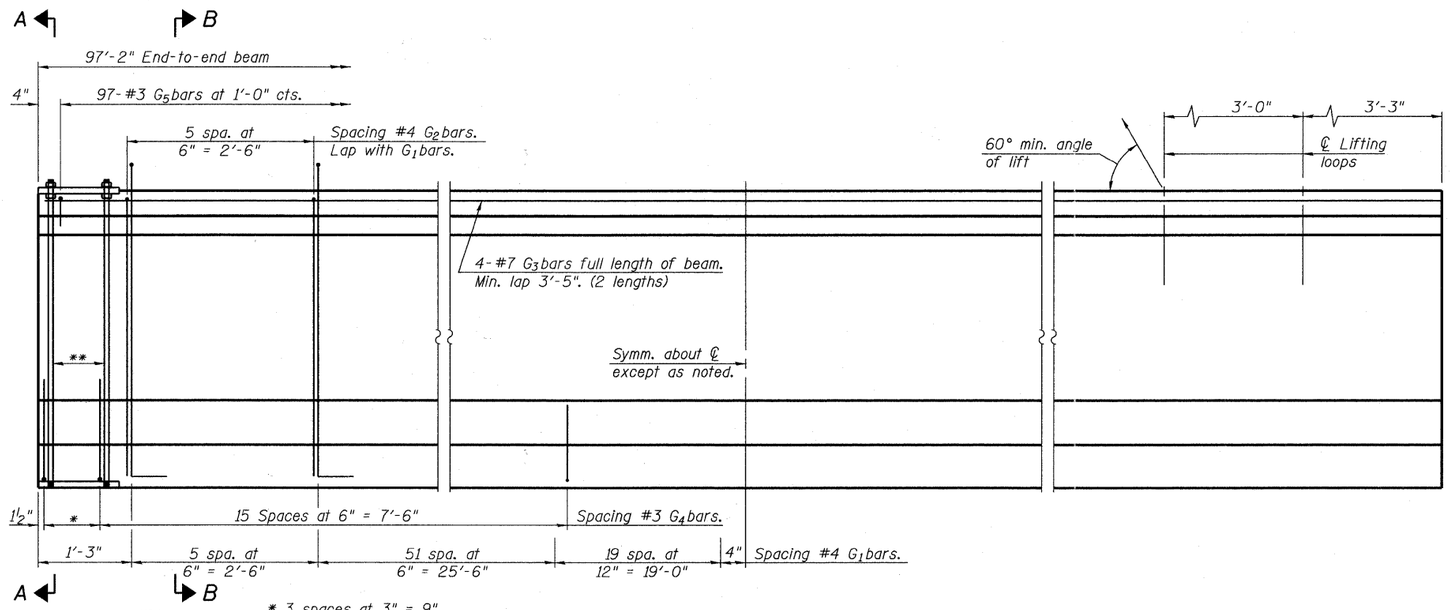
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED JJI	REVISED -
	CHECKED SRT	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

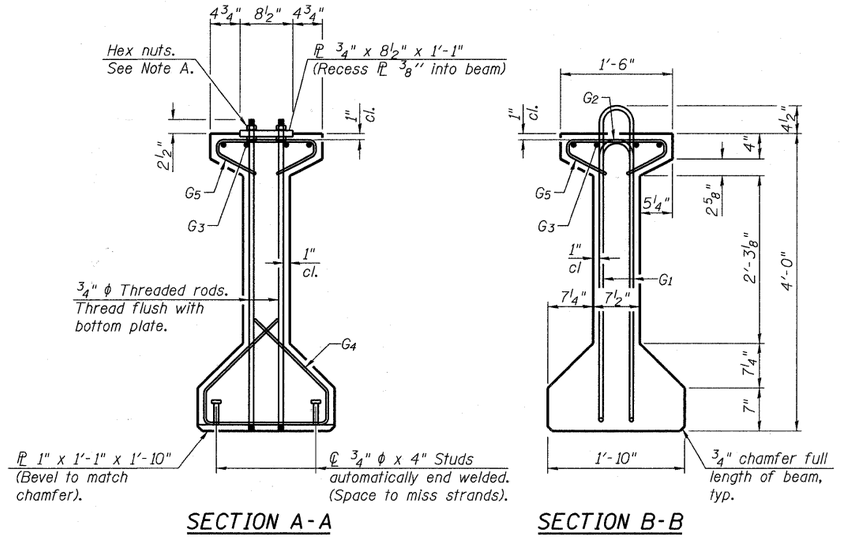
FRAMING PLAN AND BEAM TABLES
STRUCTURE NO. 022-3120
SHEET NO. 9 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	61
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



* 3 spaces at 3" = 9".
** 4-¾" ϕ threaded dowel rods at 3" cts., Each Face.

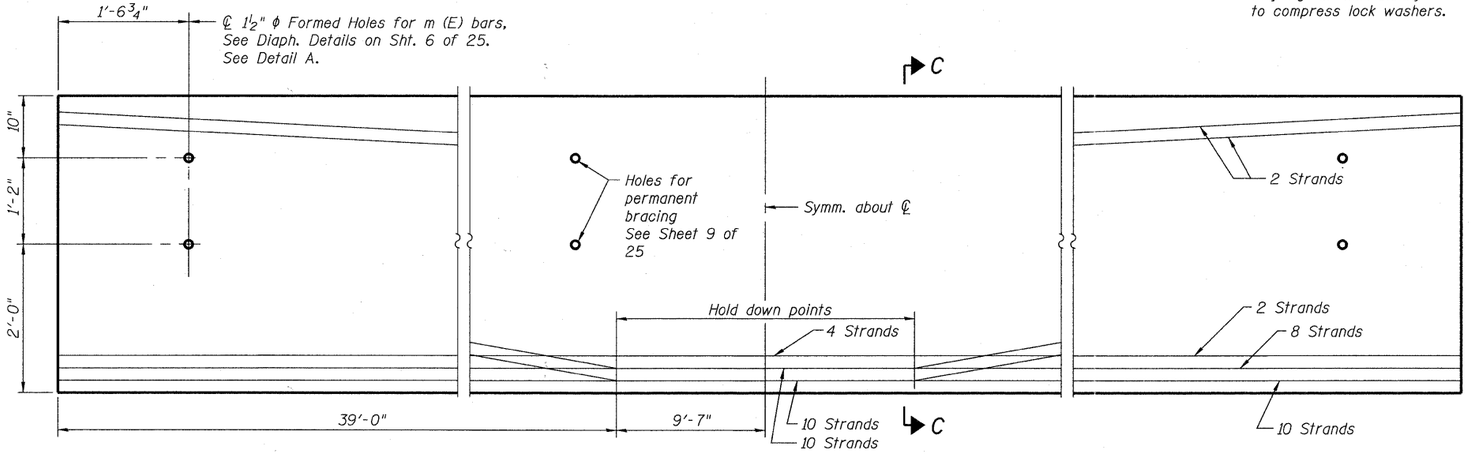
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



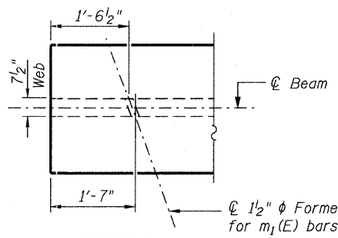
SECTION A-A

SECTION B-B

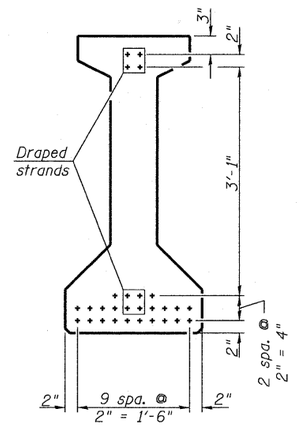
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



ELEVATION OF BEAM
(Showing prestressing steel)



DETAIL A



SECTION C-C

***BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	152	#4	9'-6"	
G_2	12	#4	7'-11"	
G_3	8	#7	50'-4"	
G_4	38	#3	5'-3"	
G_5	97	#3	2'-9"	

***For information only

Notes:
See sheet 11 of 25 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.

PI-4-48 7-1-10

FILE NAME = w:\756-0004_lombard - gw1 bridges phase 1\ladd sheets\structural\grace\022320-018-48 I-BEAMDETAILS 1.dgn

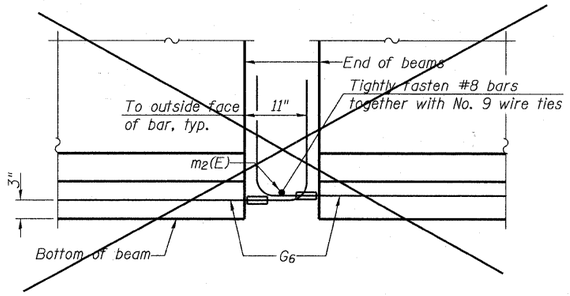
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED JJI SRT	REVISED -	
	CHECKED SRTJJI	REVISED -	
PLOT SCALE =	DRAWN GM GM	REVISED -	
PLOT DATE = 7/26/2011	CHECKED SRTJJI	REVISED -	

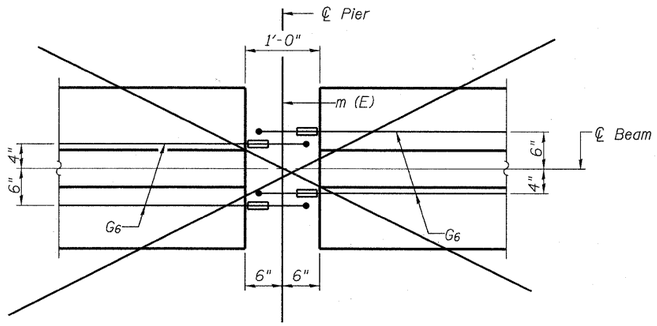
STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

48" PPC I-BEAM
STRUCTURE NO. 022-3120
SHEET NO. 10 OF 25 SHEETS

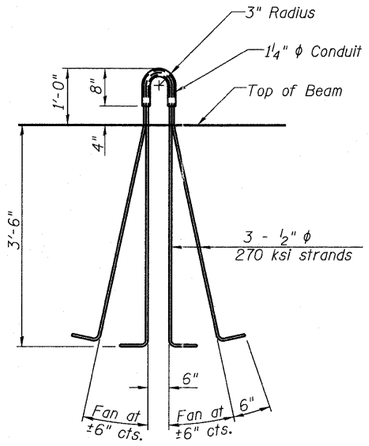
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	62
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER



LIFTING LOOP DETAIL

NOTES

Inserts for $\frac{3}{4}$" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$" and the nominal cross-sectional area shall be 0.153 sq. in.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

A minimum 2$\frac{1}{2}$" ϕ lifting pin shall be used to engage the lifting loops during handling.

~~Tilt G_6 bars when necessary to maintain $1\frac{1}{2}$" clearance.~~

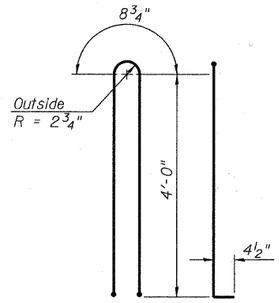
The top and bottom plates shall be AASHTO M270 Grade 50.

The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.

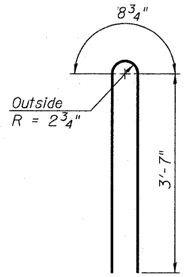
Threaded rods shall be ASTM F 1554 Grade 55.

~~The G_6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar.~~

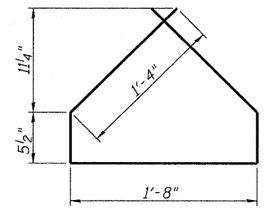
Beams requiring G_6 bar assemblies shall not be released from the fabricator until they have attained 45 days of age or older.



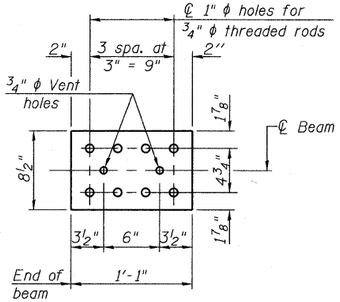
BAR G1



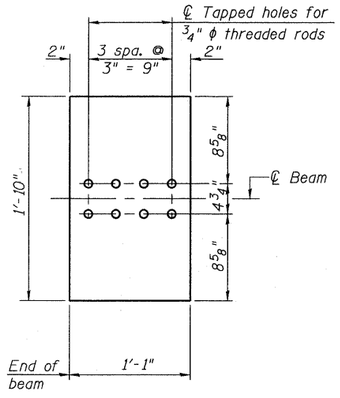
BAR G2



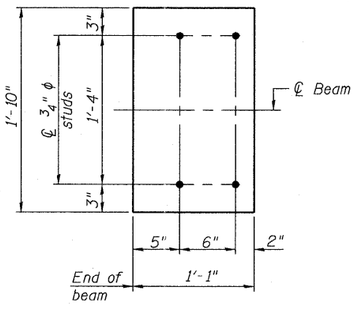
BAR G4



TOP PLATE

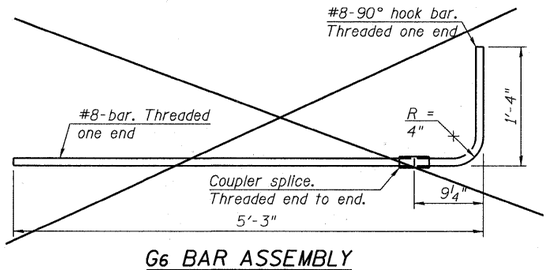


BOTTOM PLATE
(Showing threaded rods)

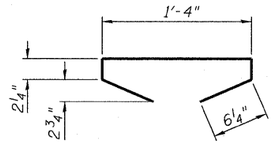


BOTTOM PLATE
(Showing studs)

See bearing details for pintle hole locations when required.



G6 BAR ASSEMBLY



BAR G5

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	389

PI-4-48D 7-1-10

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

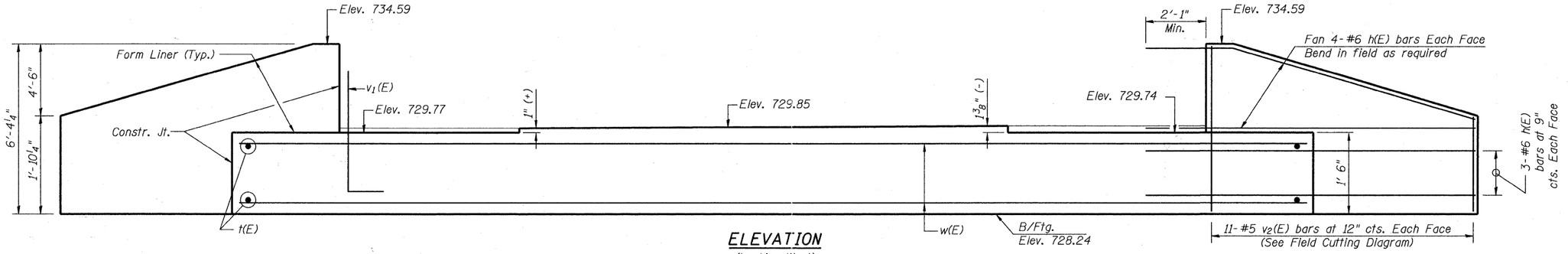
USER NAME = gonzalo	DESIGNED JJI SRT	REVISED -
	CHECKED SRTJJI	REVISED -
PLOT SCALE =	DRAWN GM GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED SRTJJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

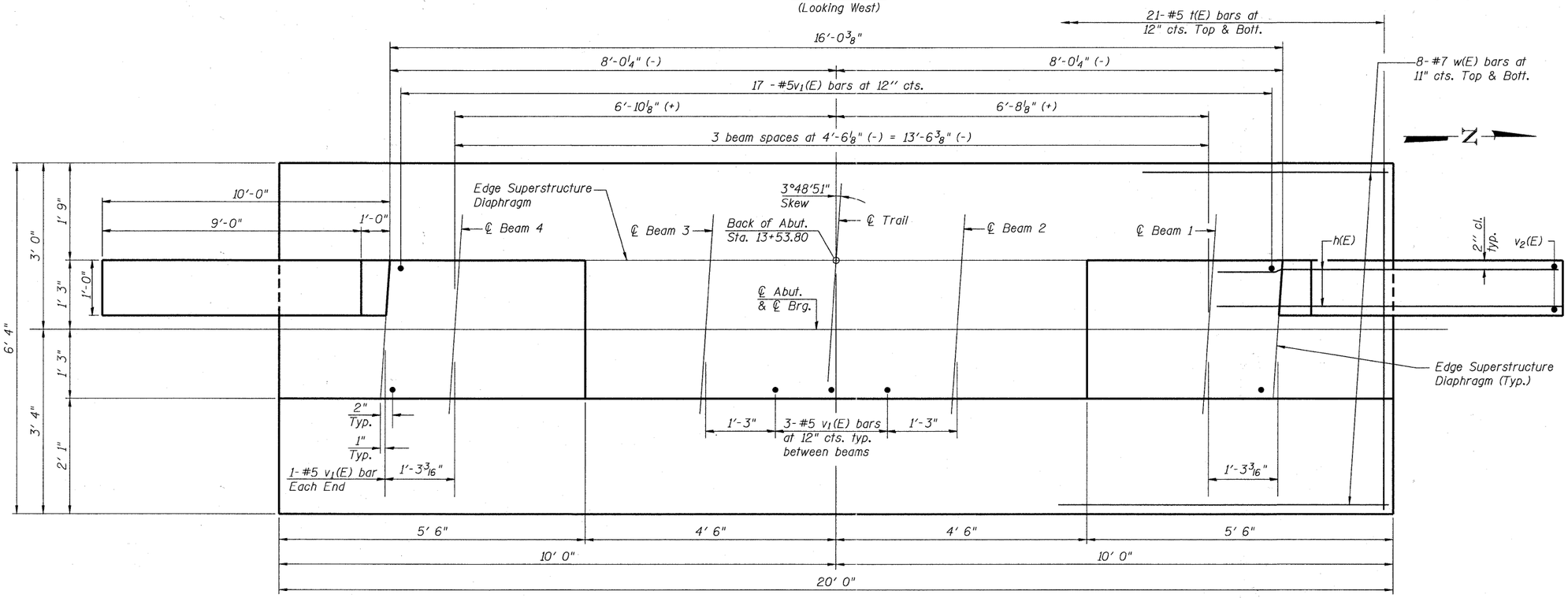
48" PPC I-BEAM DETAILS
STRUCTURE NO. 022-3120
SHEET NO. 11 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	63
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

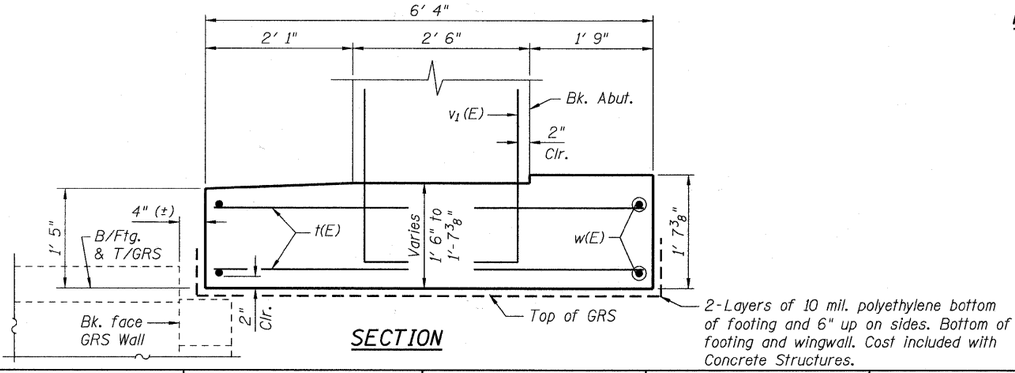
FILE NAME = w:\756-024_lombard - gwt bridges phase 1\cadd sheets\structural\grace\022320-011-48 I-BEAMDETAILS II.dgn



ELEVATION
(Looking West)

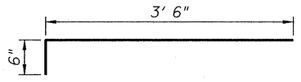


PLAN

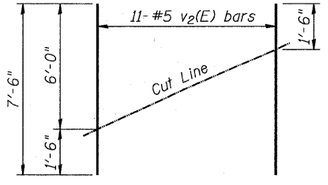


SECTION

2-Layers of 10 mil. polyethylene bottom of footing and 6" up on sides. Bottom of footing and wingwall. Cost included with Concrete Structures.



BAR v_1(E)



FIELD CUTTING DIAGRAM

Order v_2(E) full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#6	13'-1"	
t(E)	42	#5	6'-0"	
w(E)	16	#7	19'-8"	
v_1(E)	28	#5	4'-0"	
v_2(E)	22	#5	7'-6"	
Concrete Structures		Cu. Yd.	10.5	
Reinforcement Bars, Epoxy Coated		Pound	1,780	
Anti-Graffiti Protection System		Sq. Ft.	120	
Form Liner Textured Surface, Special		Sq. Ft.	60	

Notes:
Contractor Shall coordinate abutment construction with construction of GRS-IBS and settlement waiting period.
Pour steps monolithically with footing.

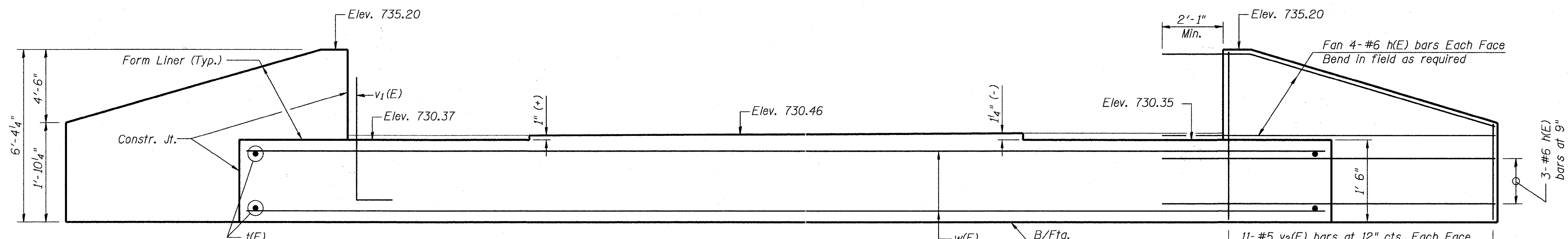
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED JJI	REVISED -
	CHECKED SRT	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

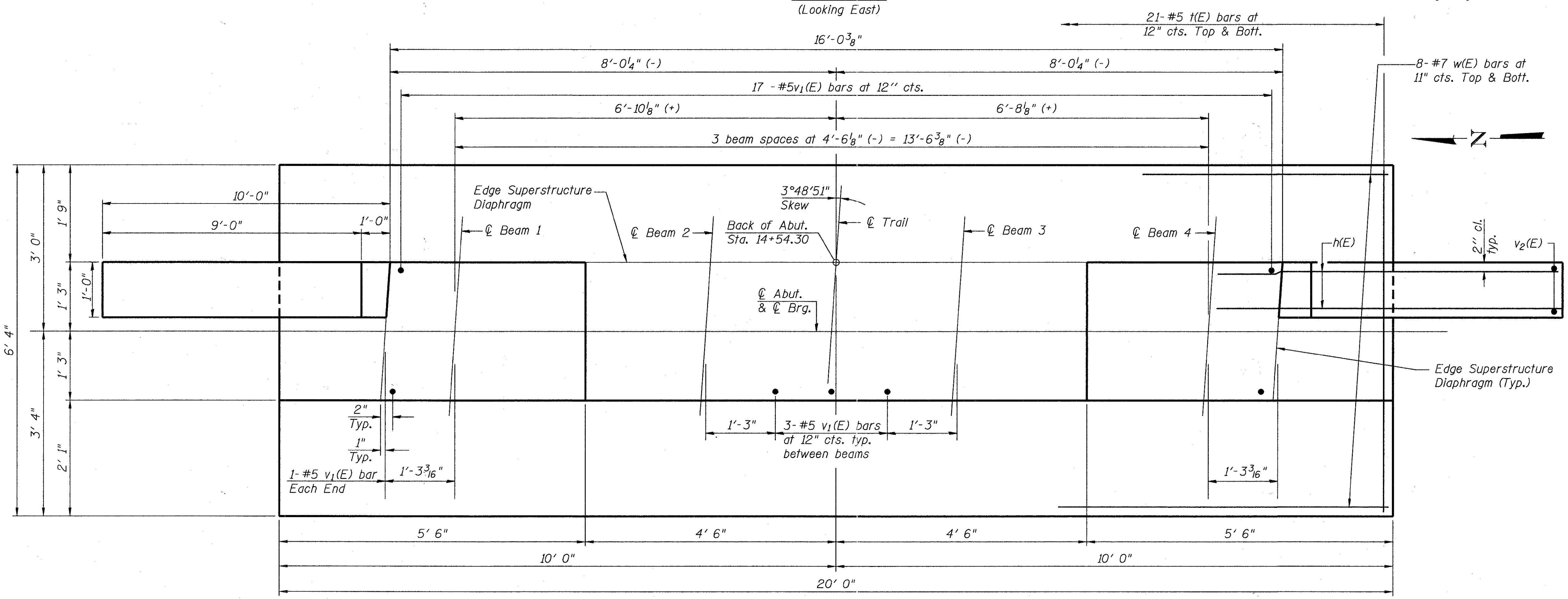
STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

WEST ABUTMENT
STRUCTURE NO. 022-3120
SHEET NO. 12 OF 25 SHEETS

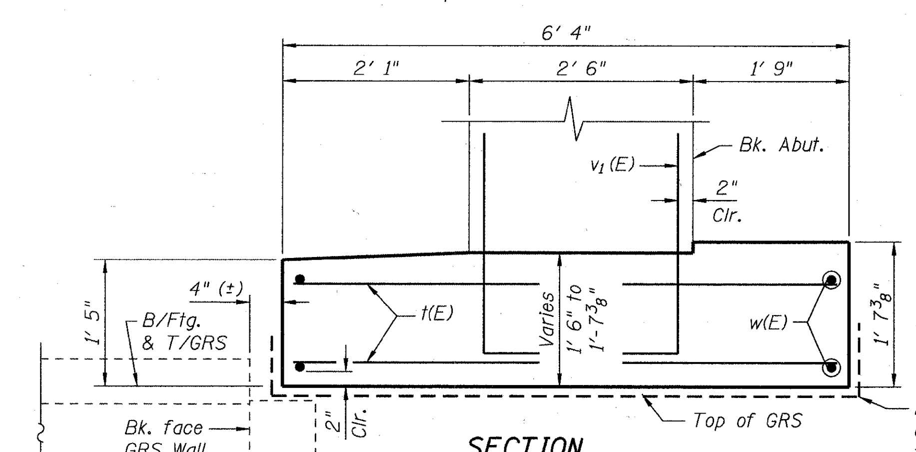
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	64
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking East)

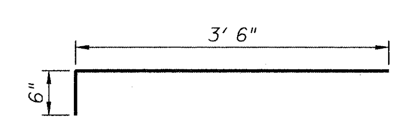


PLAN

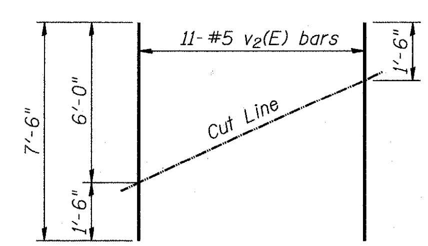


SECTION

2-Layers of 10 mil. polyethylene bottom of footing and 6" up on sides. Bottom of footing and wingwall. Cost included with Concrete Structures.



BAR v_1(E)



FIELD CUTTING DIAGRAM

Order v_2(E) full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#6	13'-1"	——
t(E)	42	#5	6'-0"	——
w(E)	16	#7	19'-8"	——
v_1(E)	28	#5	4'-0"	L
v_2(E)	22	#5	7'-6"	——

Concrete Structures	Cu. Yd.	10.5
Reinforcement Bars, Epoxy Coated	Pound	1,780
Anti-Graffiti Protection System	Sq. Ft.	120
Form Liner Textured Surface, Special	Sq. Ft.	60

Notes:

Contractor Shall coordinate abutment construction with construction of GRS-IBS and settlement waiting period.

Pour steps monolithically with footing.

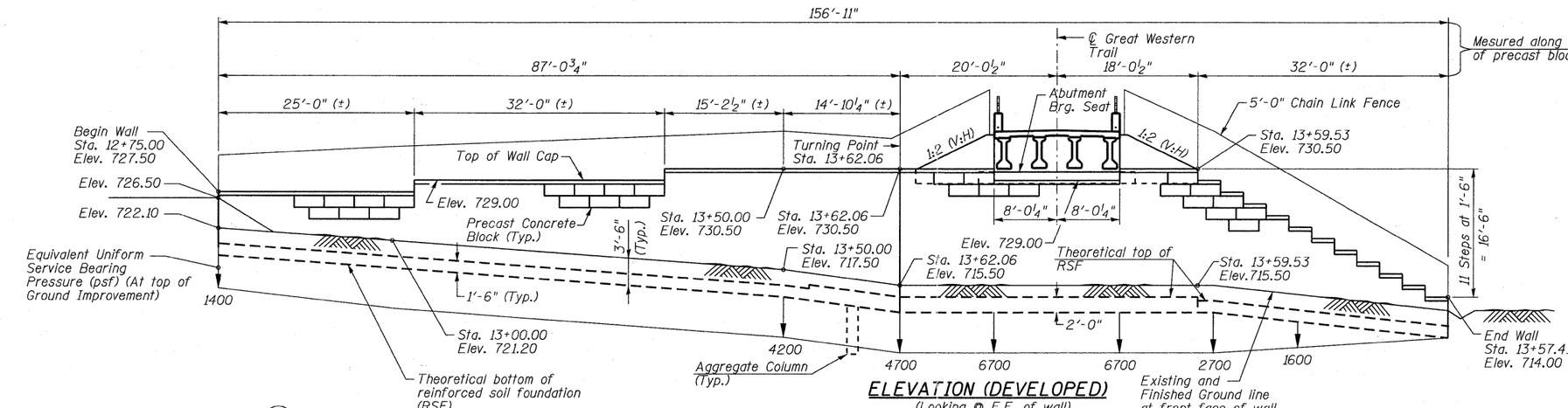
FILE NAME = w:\756-004_lombard - gwt bridges phase ii\cadd sheets\structural\grace\0223120-013-EASTABUTMENT.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -
		CHECKED SRT	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

EAST ABUTMENT
STRUCTURE NO. 022-3120
SHEET NO. 13 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	65
		CONTRACT NO. 63568		
		ILLINOIS FED. AID PROJECT		

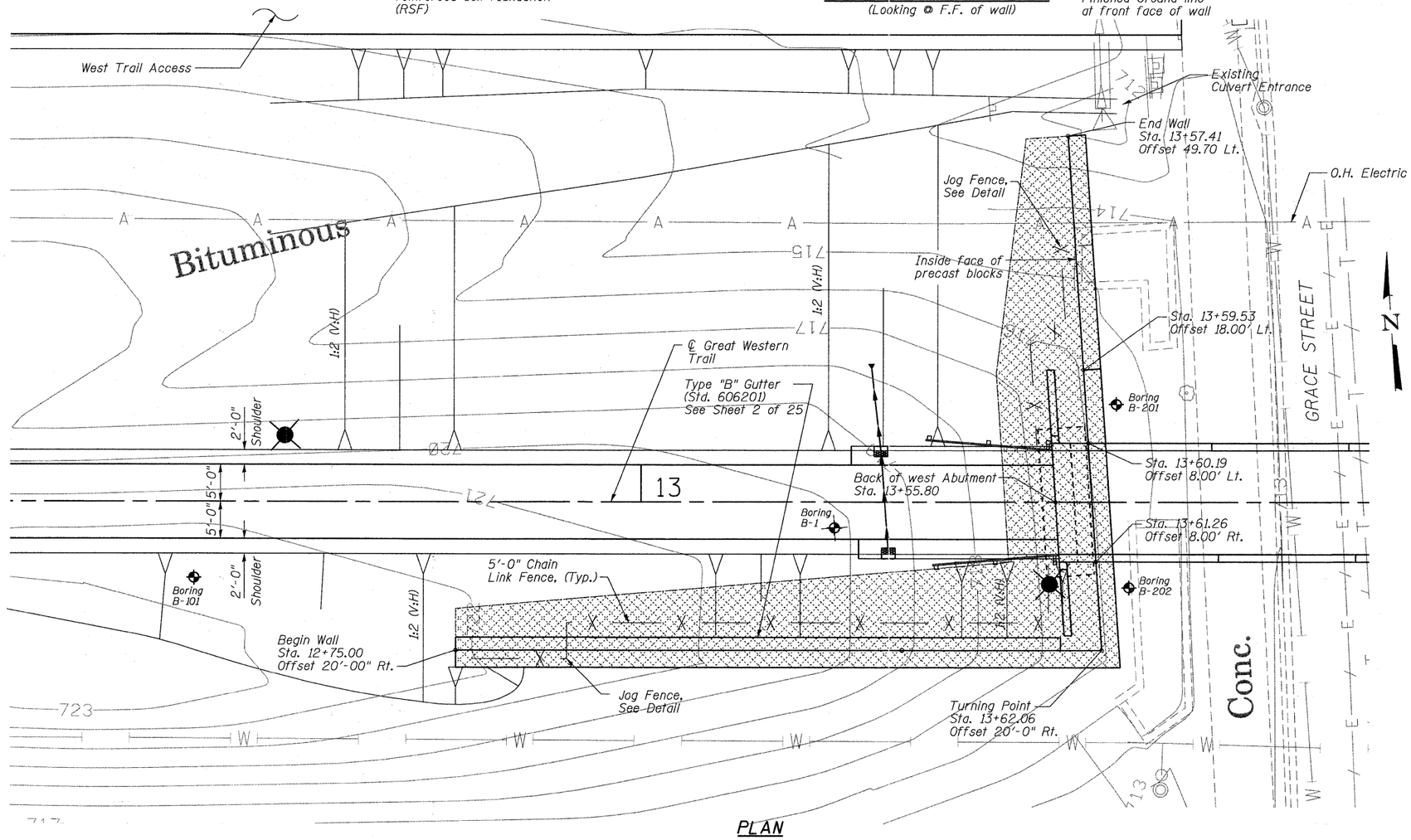


ELEVATION (DEVELOPED)

(Looking @ F.F. of wall)

Notes:

1. See GRS-IBS sheets for design and construction requirements.
2. Wall Elevation shows general top of wall layout requirements and minimum bottom of RSF elevations. Wall will be stained. See Special Provisions for Precast Modular Blocks,
3. See Special Provisions for Aggregate Column Ground Improvement for design and construction requirements, and notes on GRS-IBS Sheets. Aggregate Column Ground Improvement is required below the theoretical bottom of RSF elevation.
4. Contractor to coordinate location and lengths of soil reinforcement with fence post and light pole, conduit, and unit duct locations shown on Lighting Plans, to avoid conflicts. Any load transfer system required shall be detailed and shown on Shop Drawings.
5. For Fence and Gutter limits and details, see Roadway Plans.
6. Anti-Graffiti Protective System applied.



Note: Wall offsets are measured from the ℄ Great Western Trail to the inside face of precast blocks.

Approximate Limit of Aggregate Column Ground Improvement & Reinforced Soil Mass

PLAN

BILL OF MATERIAL

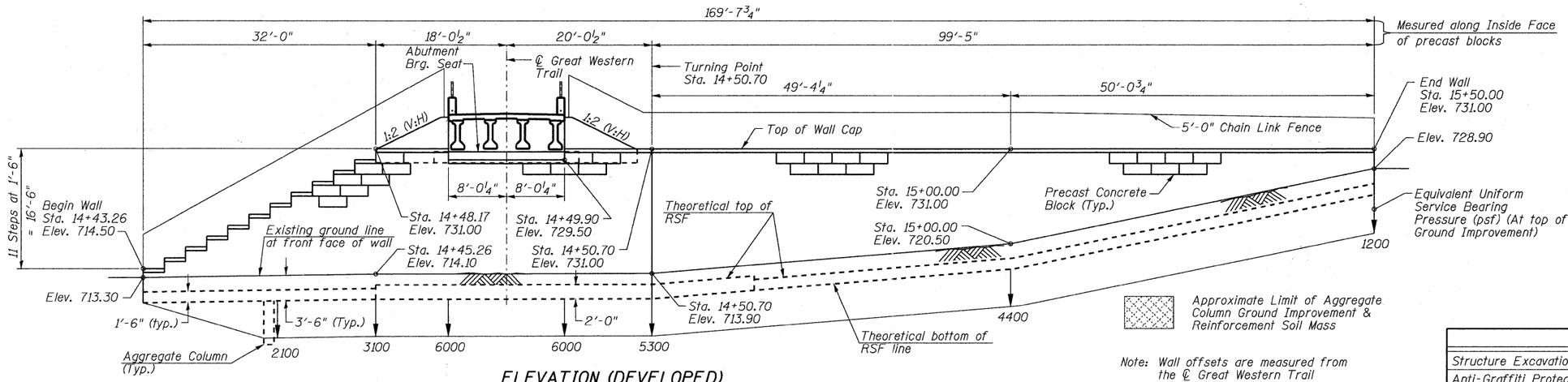
	UNIT	TOTAL
Structure Excavation	Cu. Yd.	230
Anti-Graffiti Protection System.	Sq. Ft.	2,550
Aggregate Column Ground Improvement - Location 1	L. Sum.	1
Geosynthetic Reinforced Soil	Sq. Ft.	2,180
Precast Modular Blocks	Sq. Ft.	2,180
Reinforced Soil Foundation	Feet	157
GRS Backfill Material	Cu. Yd.	495

FILE NAME =	USER NAME =	DESIGNED JJT	REVISED -
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS		CHECKED SRT	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE =	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

WEST ABUTMENT GRS WALL
STRUCTURE NO. 022-3120
SHEET NO. 14 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	66
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



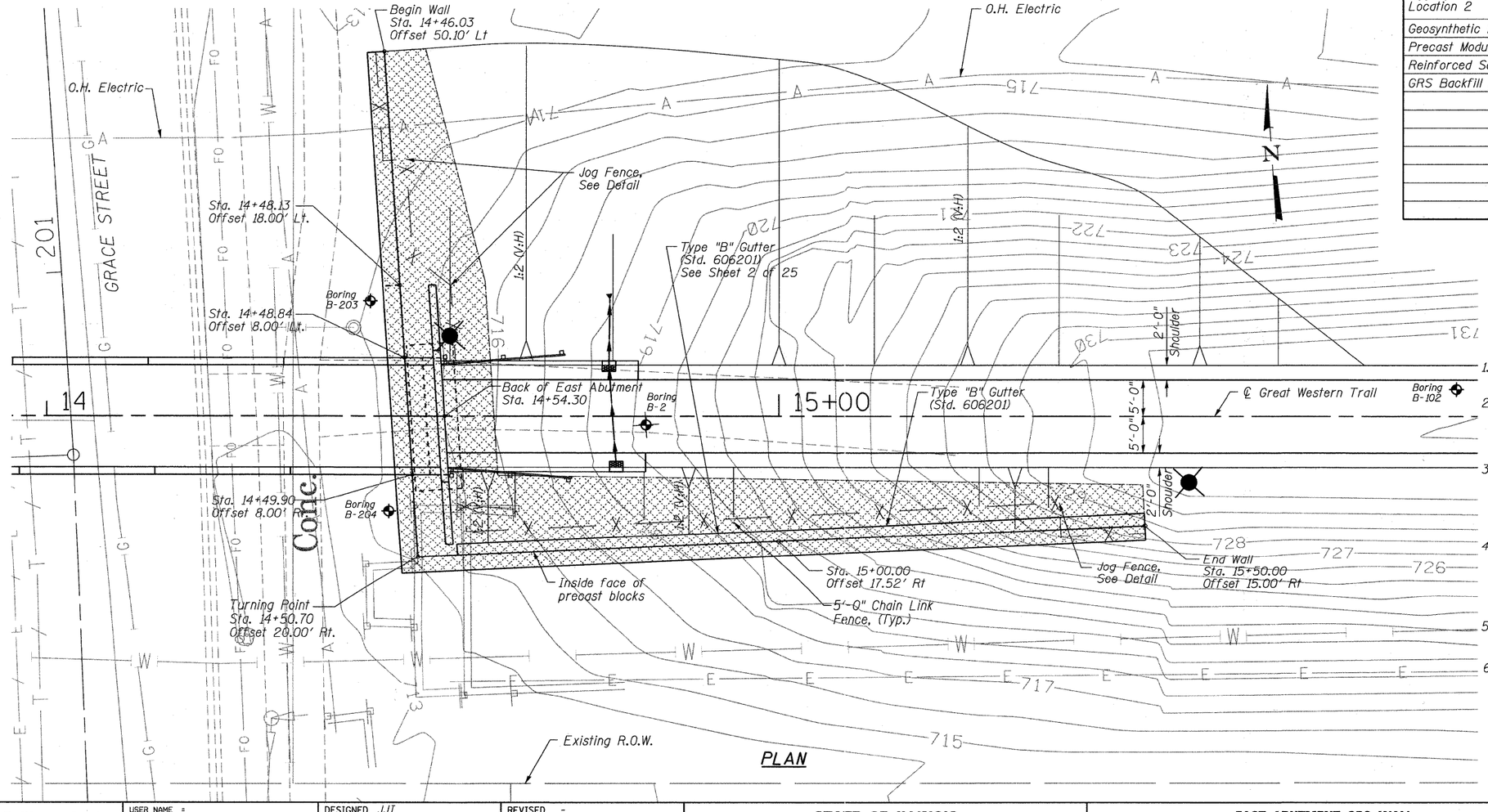
Note: Wall offsets are measured from the ℄ Great Western Trail to the inside face of precast blocks.

ELEVATION (DEVELOPED)

(Looking @ F.F. of wall)

BILL OF MATERIAL

	UNIT	TOTAL
Structure Excavation	Cu. Yd.	280
Anti-Graffiti Protection System.	Sq. Ft.	2,660
Aggregate Column Ground Improvement - Location 2	L. Sum.	1
Geosynthetic Reinforced Soil	Sq. Ft.	2,260
Precast Modular Blocks	Sq. Ft.	2,260
Reinforced Soil Foundation	Feet	170
GRS Backfill Material	Cu. Yd.	598



PLAN

Notes:

1. See GRS-IBS sheets for design and construction requirements.
2. Wall Elevation shows general top of wall layout requirements and minimum bottom of RSF elevations. Wall will be stained. See Special Provisions for Precast Modular Blocks,
3. See Special Provisions for Aggregate Column Ground Improvement for design and construction requirements, and notes on GRS-IBS Sheets. Aggregate Column Ground Improvement is required below the theoretical bottom of RSF elevation.
4. Contractor to coordinate location and lengths of soil reinforcement with fence post and light pole, conduit, and unit duct locations shown on Lighting Plans, to avoid conflicts. Any load transfer system required shall be detailed and shown on Shop Drawings.
5. For Fence and Gutter limits and details, see Roadway Plans.
6. Anti-Graffiti Protective System applied.

FILE NAME =

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME =	DESIGNED JJI	REVISED -
	CHECKED SRT	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE =	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

EAST ABUTMENT GRS WALL
STRUCTURE NO. 022-3120
SHEET NO. 15 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	67
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		

GRS-IBS NOTES

DESIGN

DESIGN LOADS AND SOIL PROPERTIES
Combined load: Superstructure (qLL + qB) 2 TSF maximum (service load, allowable stress design). Roadway live load surcharge: 250 psf uniform vertical

Plans prepared assuming a 28 inch block depth.

DESIGN SPECIFICATIONS

1. Geosynthetic Reinforced Soil Integrated Bridge System Interim Implementation Guide, FHWA-HRT-11-026, January 2011.

2. Design methods follow the ASD design methods presented in Chapter 4 of the reference Manual. No seismic design assumed.

3. Design factor of safety against sliding is > 1.5; Factor of safety against bearing failure is > 2.5.

4. A global stability analysis must be performed for each site. Factor of safety against global failure is to be > 1.5.

5. Performance criteria: tolerable vertical strain = 0.5% of wall height (H); tolerable lateral strain = 1.0% of b and a_b (bearing width and setback)

CONSTRUCTION SPECIFICATIONS

1. Site Layout/Survey: Construct the base of the GRS abutment and wingwalls within 1.0 inch of the staked elevations. Construct the external GRS abutment and wingwalls to within *0.5 inches of the surveyed stake dimensions.

2. Excavation: Comply with Occupational Safety and Health Administration (OSHA) for all excavations.

3. Compaction: Compact backfill to a minimum of 95 percent of the maximum dry density according to AASHTO-T-99 and * 2 percent optimum moisture content In the bearing reinforcement zone, compact to 100 percent of the maximum dry density according to AASHTO-T-99. Only hand-operated compaction equipment is allowed within 3-feet of the wall face. Reinforcement extends directly beneath each layer of modular blocks, covering > 85% of the full width of the block to the front face of the wall.

4. Geosynthetic Reinforcement Placement: Pull the geosynthetic taught to remove any wrinkles and lay flat prior to placing and compacting the backfill material. Splices should be staggered at least 24-inches apart and splices are not allowed in the bearing reinforcement zone. No equipment is allowed directly on the geosynthetic. Place a minimum 6-inch layer of granular fill prior to operating only rubber-tired equipment over the geosynthetic at speeds less than 5 miles per hour with no sudden braking or sharp turning.

5. RSF Construction: The RSF should be encapsulated in geotextile reinforcement on all sides with minimum overlaps of 3.0 feet. Wrapped corners need to be tight without exposed soil. Compact backfill material in lifts less than 6-inches in compacted height. Grade and level the top of the RSF prior to final encapsulation, as this will serve as the leveling pad for the modular blocks of the GRS abutment.

6. GRS Wall Face Alignment: Check for level alignment of the modular block row at least every other layer of the GRS abutment. Correct any alignment deviations greater than 0.25 inches.

7. Beam Seat Placement: Thickness of the beam seat is approximately 12 inches and consists of a minimum of three 4-inch lifts of wrapped-face GRS. Place precut 4-inch thick foam board on the top of the bearing bed reinforcement butt against the back face of the modular block. Set half-height or full height (depending on wall height and required clear space) CMU blocks on top of the foam board. Wrap 4-inch lifts across the beam seat. Before folding the final wrap, it may be necessary to grade the surface aggregate of the beam seat slightly high, to about 0.5 inches, to aid in seating the footing and to maximize contact with the bearing area.

8. Equipment can be positioned on the GRS abutment provided the outrigger pads are sized for less than 4,000 psf near the face of the abutment wall.

9. Integrated Approach Placement: Following the placement of the superstructure and cast-in-place abutment, geotextile reinforcement layers are placed along the back of the superstructure, built in maximum lift heights of 6-inches (maximum vertical spacing of reinforcement < 6-inches). The top of the final wrap should allow at least 2-inches of aggregate base cover over the geosynthetic to protect it from hot mix asphalt.

10. The GRS at the abutment, along with the adjacent backfill material and embankment shall be constructed up to the top level of the Beam Seat Zone, below the cast-in-place abutment spread footing, and then be allowed rest for a period as specified in the special provision Settlement Waiting Period. The bridge abutment cast-in-place spread footing and superstructure will be constructed after the waiting period. The Integrated Approach Zone is constructed after the superstructure and cast-in-place abutment wingwalls are constructed.

11. Geosynthetic reinforcement lengths for the abutments shall be as shown on the plan. Geosynthetic reinforcement lengths for the wingwalls shall be as shown in Table 3. Lengths of reinforcement may be varied by stepping vertically and horizontally. The Contractor shall determine RSF step locations and elevations. These elevations shall be used to determine the wingwall heights. Contractor shall prepare and submit shop drawings for approval showing the layout of all geosynthetic reinforcement for the abutments and wingwalls along with thickness and elevation of the RSF. This work shall be coordinated with the precast modular block supplier and the aggregate column contractor. Cost included with GRS-IBS.

12. The Contractor, the precast modular block supplier and the aggregate column contractor shall coordinate their submittals. This work shall be considered included in the cost of the contract. The Contractor shall cooperate with the FHWA and their representatives throughout construction of the GRS-IBS.

PRECAST MODULAR BLOCK

See Special Provisions.

GEOSYNTHETIC REINFORCEMENT TENSILE PROPERTIES

Required ultimate tensile strength = 4,800 lb/ft by (ASTM D 4595 (geotextiles) or ASTM D 6637 (geogrids))
Tensile strength at 2% strain = 1,370 lb/ft

POLYSTYRENE FOAM BOARD

Provide polystyrene foam board conforming to AASHTO M230, type VI.

AGGREGATE COLUMN GROUND IMPROVEMENT

See Special Provisions.

BACKFILL MATERIAL

Backfill material, defined as the material placed in the geosynthetic reinforced volume, shall be according to Section 1004 of the Standard Specifications and the following:

GRS Backfill Material
Coarse aggregate gradations CA 12 thru CA 16 may be used.

RSF Backfill Material
Coarse aggregate gradations CA 4, CA 6, CA 9 or CA 10 may be used.

Backfill Material Quality. The coarse aggregate shall be Class B quality or better.

GRS-IBS QUANTITIES

See individual abutment wall sheets for quantities.

GRS-IBS PAY ITEMS

Geosynthetic Reinforced Soil (GRS):
Method of Measurement. Geosynthetic Reinforced Soil will be measured for payment in square feet. The GRS will be measured from the top of the precast modular cap line to the theoretical top of RSF line for the length of the wall as shown on the contract plans and includes all GRS material from the bottom of roadway sub-base to the top of the RSF. Foam Board and solid CMU's are inlcuded in the cost of Geosynthetic Reinforced Soil.

Basis of Payment. This work, as shown on the contract plans, including placement of the GRS backfill material and RFS backfill material within the geosynthetic reinforcement wall volume shown on the approved shop drawings, geosynthetic reinforcement and accessories will be paid for at the contract unit price per square foot for Geosynthetic Reinforced Soil. This includes all labor, material, equipment for constructing the GRS. Foam board and solid CMU's are included in the cost of Geosynthetic Reinforced Soil.

Precast modular blocks and RSF will be paid for separately. Excavation necessary to place the GRS will be paid for as Structure Excavation. Reinforced backfill material placed between the ends of the geosynthetic reinforcement and the embankment will be paid for separately.

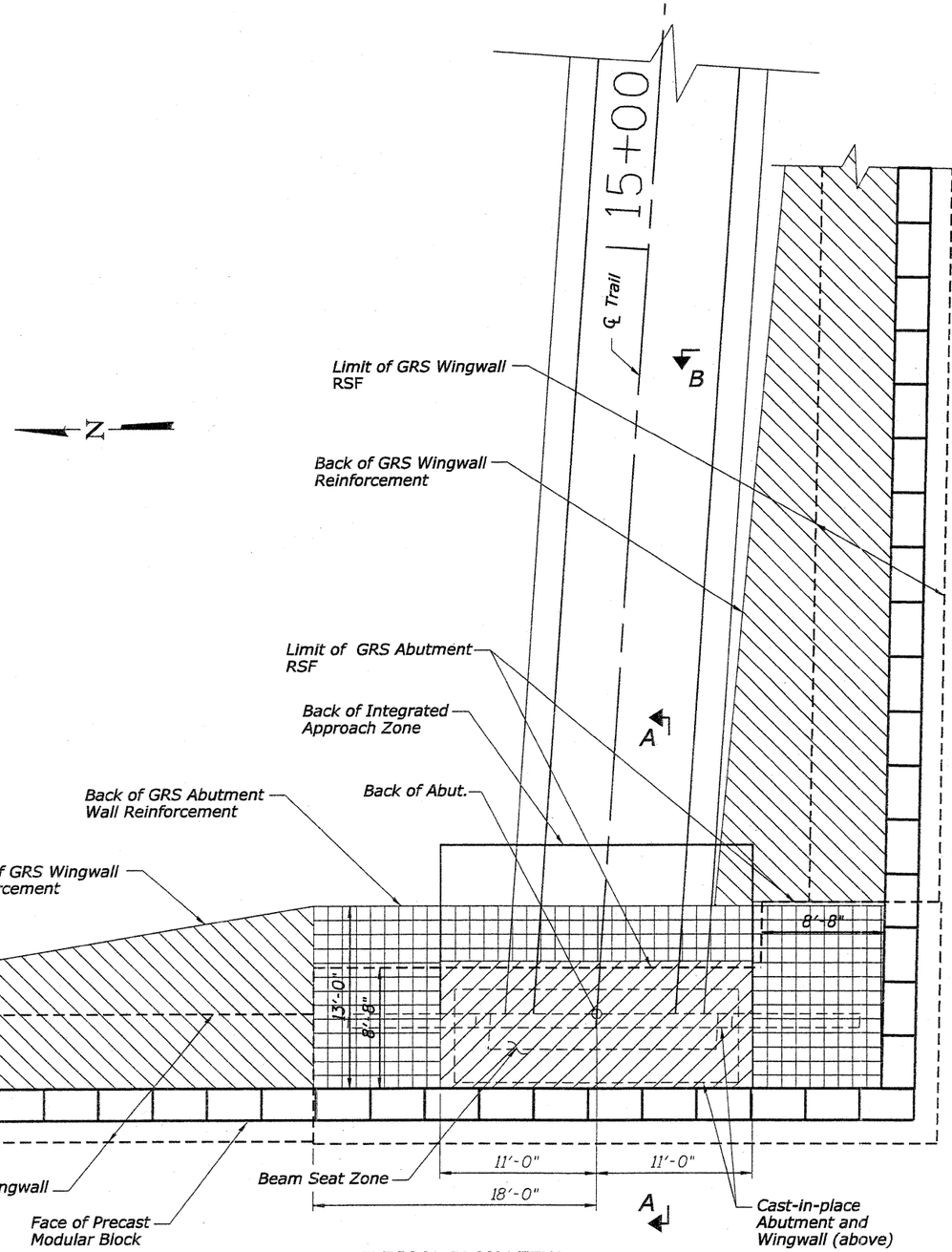
Reinforced Soil Foundation (RSF):
Method of Measurement. Reinforced Soil Foundation will be measured for payment in feet, along the inside face of blocks as shown in the plan view.

Basis of Payment. This work, as shown on the contract plans, including placement of the RFS backfill material within the geosynthetic reinforcement foundation volume shown on the approved shop drawings, geosynthetic reinforcement, backfill material and accessories will be paid for at the contract unit price per foot for Reinforced Soil Foundation.This includes all labor, material, equipment for constructing the RSF.

Excavation necessary to place the RSF will be paid for as Structure Excavation, lateral limits shall be as shown on the contract plans.

GRS Backfill Material:
Method of Measurement. Reinforced Backfill Material will be measured for payment in cubic yards, compacted in place and the volume computed by the method of average end areas. Only reinforced backfill material placed between the ends of the geosynthetic reinforcement and the embankment will be measured for payment. GRS backfill material placed within the geosynthetic reinforcement is included for payment with the Geosynthetic Reinforced Soil item.

Basis of Payment. This work, as shown on the contract plans, will be paid for at the contract unit price per cubic yard for GRS Backfill Material.



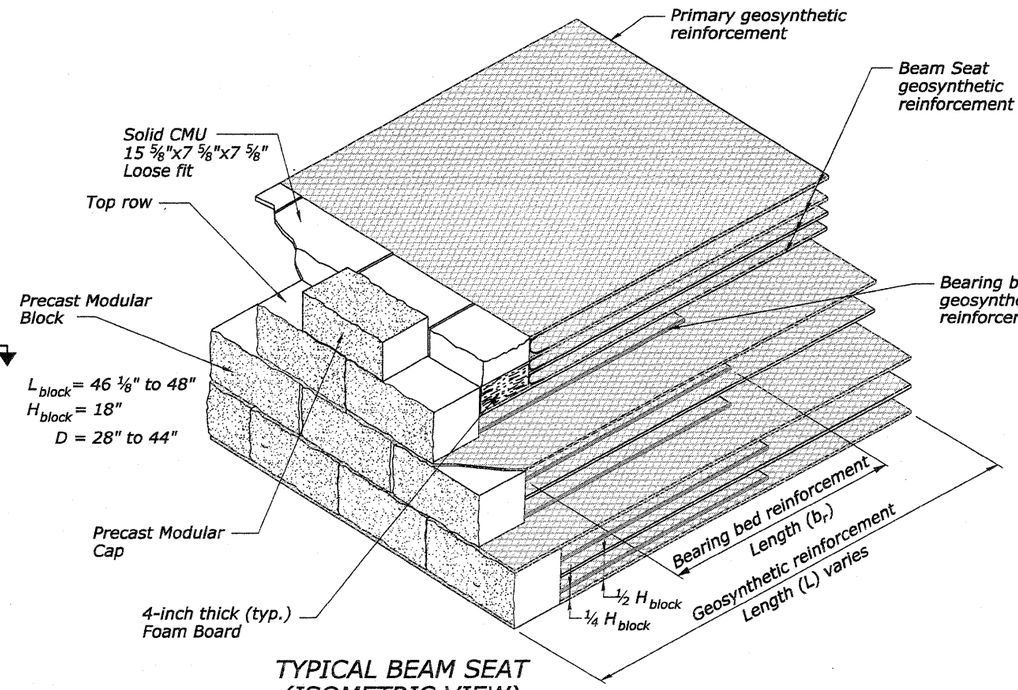
TYPICAL PLAN VIEW

GRS-IBS ABUTMENT & WINGWALLS

Portion of East Abutment Shown

West Abutment Similar

SCALE: ⅛" = 1'-0"



TYPICAL BEAM SEAT (ISOMETRIC VIEW)

Table 3 GRS-IBS DESIGN DIMENSIONS for Wingwalls

B_{total} * (FT)	B (FT)	B_{RSF} * (FT)	D_{RSF} (FT)	X_{RSF} (FT)	Wingwall Height (FT)
7.69	5.36	9.19	1.50	1.50	14.00
7.69	5.36	9.19	1.50	1.50	15.89
7.69	5.36	9.19	1.50	1.50	17.79
7.69	5.36	9.19	1.50	1.50	19.70
8.19	5.86	9.80	1.63	1.63	21.60
8.69	6.36	10.44	1.75	1.75	23.51
9.19	6.86	11.07	1.88	1.88	25.42
9.68	7.36	11.69	2.00	2.00	27.83

Wingwall Height = Wall height measured from Top of cap to Top of RSF.

* Adjusted from FHWA tables for 28" block depth. Adjust dimensions for other than 28" block.

ABREVIATIONS:

a_b = Set back distance between back of facing element and beam seat

B = Base length of reinforcement not including the wall face

b = Bearing width for bridge, beam seat

B_b = Width of the bridge footing

b_{block} = Width of Precast Concrete Modular Block

b_r = Length of bearing bed reinforcement

B_{RSF} = Width of RSF

B_{total} = Total width at base of GRS abutment including the wall facing

CMU = Concrete masonry unit

d_{max} = Maximum partical diameter in reinforced backfill

D_{RSF} = Depth of RSF below bottom of wall elevation

GRS = Geosynthetic Reinforced Soil

H = Wall height measured from top of RSF to top of beam seat

H_{block} = Height of Precast Concrete Modular Block

IBS = Integrated Bridge System

L = Length of geosynthetic reinforcement

L_{abut} = Abutment width

L_{block} = Length of Precast Concrete Modular Block

RSF = Reinforced soil foundation

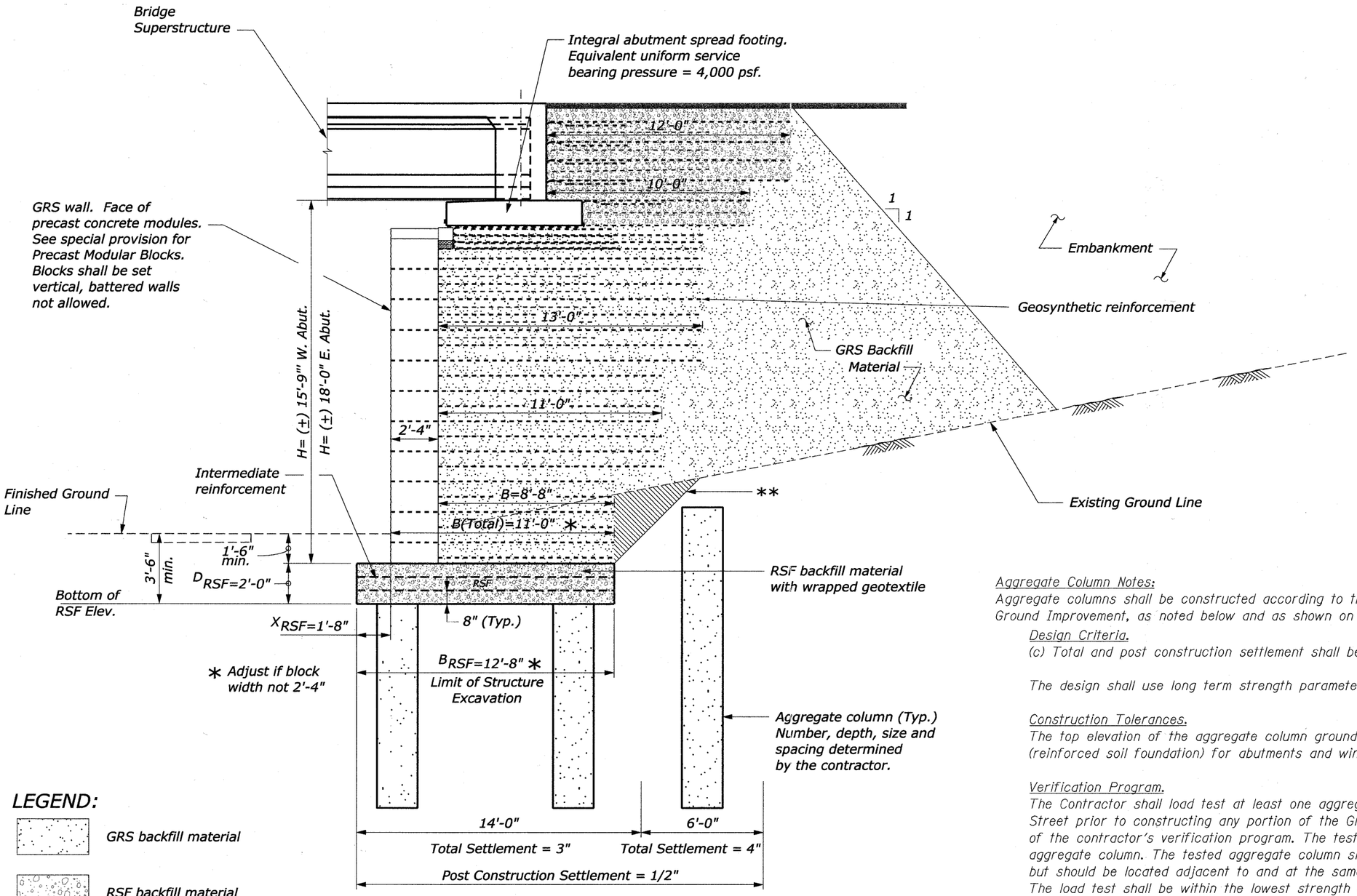
X_{RSF} = Length of RSF in front of the abutment wall face

FILE NAME = w:\756-804_lombard - gwt bridges phase ii\cadd sheets\structural\GRACE\B223128-B17-GRS-IBSDetails.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET
		CHECKED SRT	REVISED -	
	PLOT SCALE =	DRAWN GM	REVISED -	
	PLOT DATE = 8/2/2011	CHECKED SRT	REVISED -	

GRS-IBS TYPICAL PLAN & DETAILS
STRUCTURE NUMBER 022-3120
SHEET NO. 17 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	69
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



LEGEND:

GRS backfill material

RSF backfill material

** Overexcavation beyond the limits of Structure excavation. This area not measured for payment. Backfill overexcavation with same material as used for reinforcement fill.

SECTION A-A

Scale: 3/16" = 1'-0"

Aggregate Column Notes:

Aggregate columns shall be constructed according to the special provision Aggregate Column Ground Improvement, as noted below and as shown on the plans.

Design Criteria.

(c) Total and post construction settlement shall be as shown on the plans.

The design shall use long term strength parameters for the soil.

Construction Tolerances.

The top elevation of the aggregate column ground improvement shall be at the base of the RSF (reinforced soil foundation) for abutments and wingwalls of the GRS-IBS.

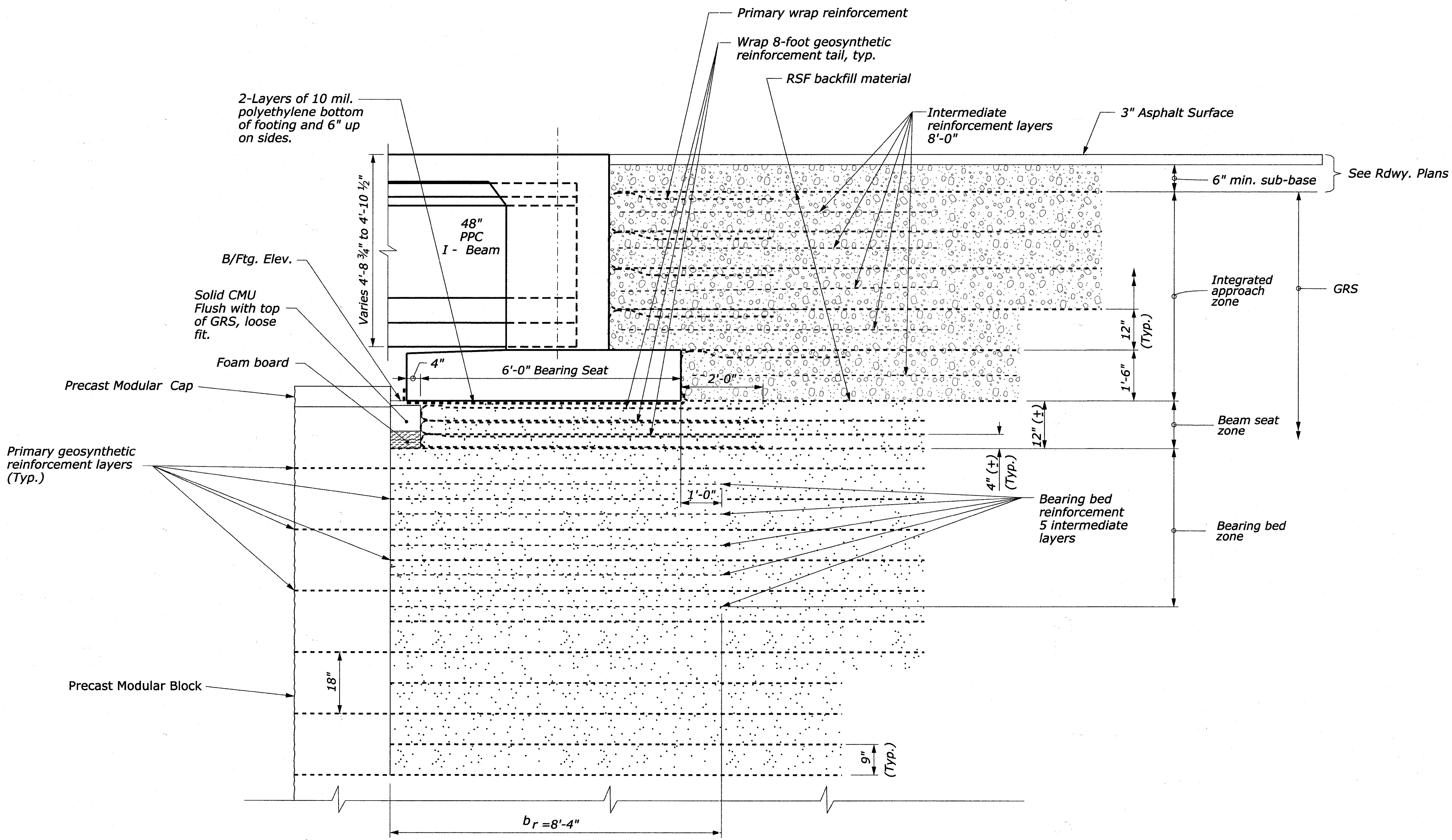
Verification Program.

The Contractor shall load test at least one aggregate column at the east abutment of Grace Street prior to constructing any portion of the GRS abutment. This work is included as part of the contractor's verification program. The test is to be performed on an individual aggregate column. The tested aggregate column shall not be a production aggregate column, but should be located adjacent to and at the same elevation as those under the abutment RSF. The load test shall be within the lowest strength existing soils at the east abutment location. The aggregate column shall be loaded to 150% of the design stress shown in the approved design computations for the abutment location. The design computations shall clearly show the calculated design stress, the location for the load test, and the rational used to determine the location.

FILE NAME = e:\706-004_lombard - gvt bridges phase 1\cadd sheets\structural\grace\022320-018-SECTIONAA.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	GRS–IBS SECTION A–A STRUCTURE NUMBER 022–3120
		CHECKED SRT	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		SHEET NO. 18 OF 25 SHEETS
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	70
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



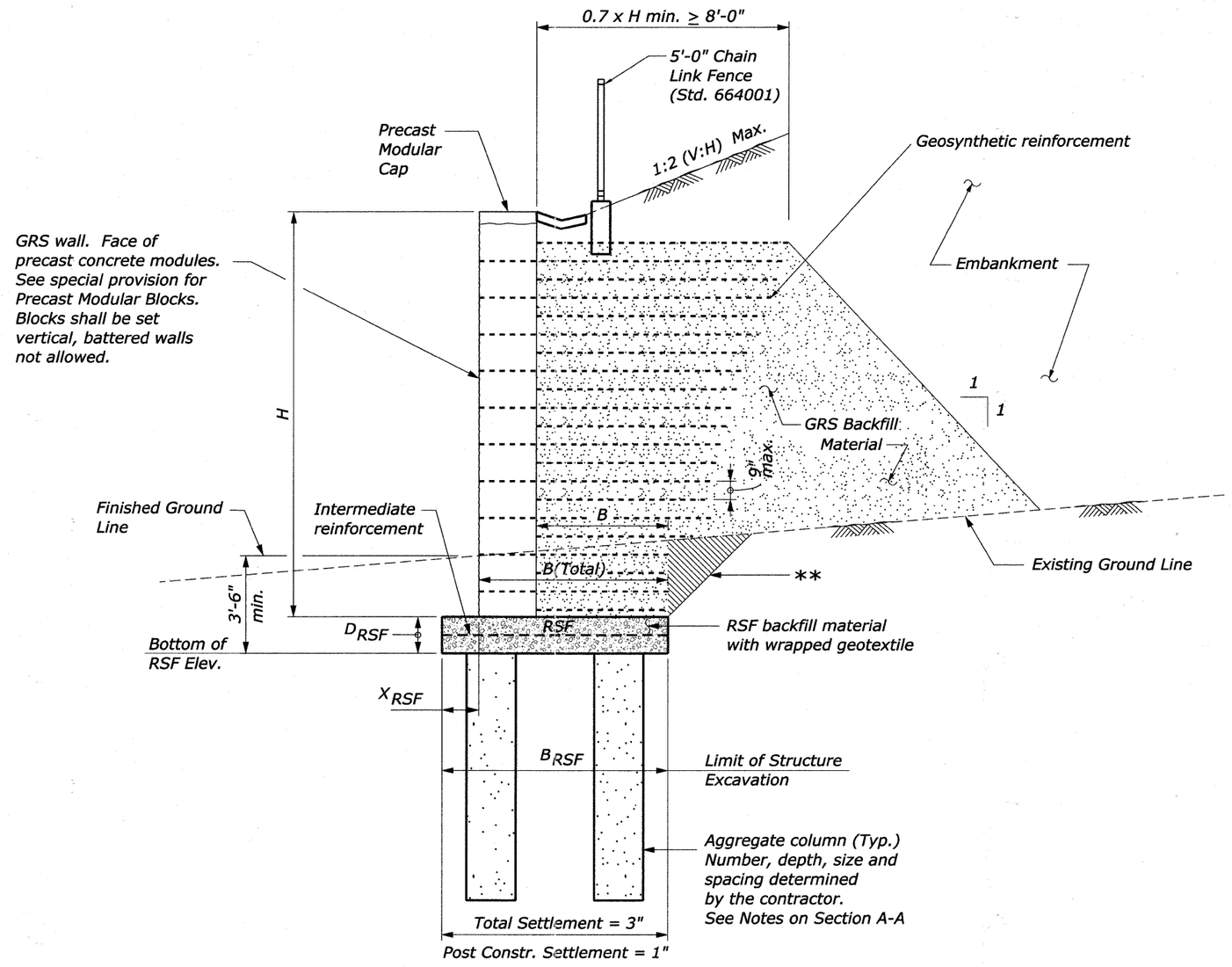
LEGEND:

GRS backfill material

RSF backfill material

DETAIL
(Beam seat and integrated approach Detail)
Vertical Scale: 3/8" = 1'-0"
Horizontal Scale: NTS

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	GRS–IBS ABUTMENT DETAIL STRUCTURE NUMBER 022-3120	F.A. RTE. / SECTION 06-00151-00-BR / COUNTY DuPAGE / TOTAL SHEETS 201 / SHEET NO. 71
	PLOT SCALE =	CHECKED SRT	REVISED -			CONTRACT NO. 63568
	PLOT DATE = 7/26/2011	DRAWN GM	REVISED -		SHEET NO. 19 OF 25 SHEETS	ILLINOIS FED. AID PROJECT
		CHECKED SRT	REVISED -			



LEGEND:

GRS backfill material

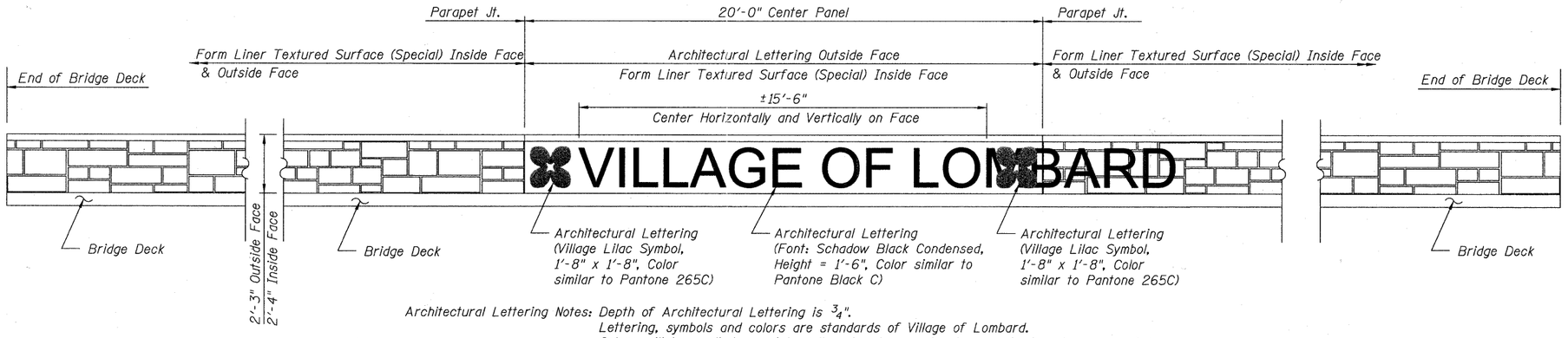
RSF backfill material

** *Overexcavation beyond the limits of Structure excavation. This area not measured for payment. Backfill overexcavation with same material as used for reinforcement fill.*

SECTION B-B
TYPICAL WINGWALL
Scale: $\frac{3}{16}$" = 1'-0"

FILE NAME = w:\756-004_lombard - gwt bridges phase ii\cadd sheets\structural\grace\022312B-220-WINGWALLSECTION.dgn

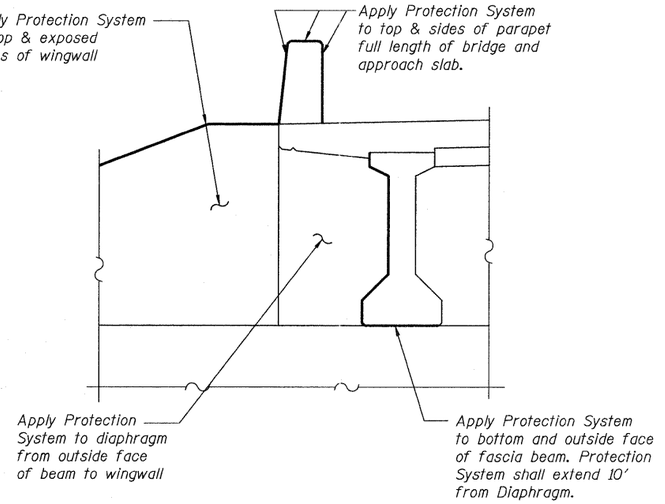
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	WINGWALL SECTION STRUCTURE NUMBER 022–3120	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED SRT	REVISED -				06-00151-00-BR	DuPAGE	201	72
	PLOT SCALE =	DRAWN GM	REVISED -					CONTRACT NO. 63568		
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		SHEET NO. 20 OF 25 SHEETS			ILLINOIS FED. AID PROJECT		



Architectural Lettering Notes: Depth of Architectural Lettering is $\frac{3}{4}$".
Lettering, symbols and colors are standards of Village of Lombard.
Colors will be applied over integrally colored concrete. Any required pretreatment of the areas to be colored necessary to achieve the desired final color is included in the work.

PARAPET ELEVATION

(Outside Face Shown, Typ. each Parapet)

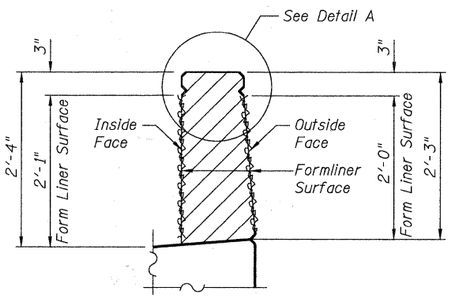


ANTI-GRAFITTI PROTECTION SYSTEM

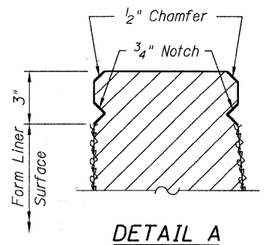
BILL OF MATERIAL

Item	Unit	Total
Architectural Lettering	L. Sum	0.5

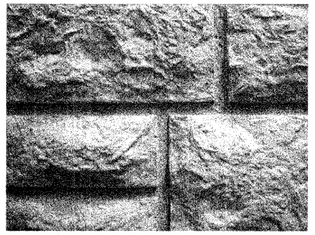
Integrally Colored Concrete, paid for as Concrete Superstructure, Special

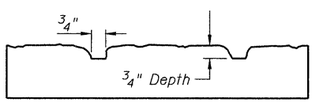


PARAPET FORM LINER



DETAIL A





FORM LINER TEXTURE DETAIL

See Special Provisions

Note:

Form Liner Textured Surface (Special) to be used on inside and outside faces of Parapet, except in areas of Architectural Lettering. Utilize Fitzgerald Formliners form liner pattern #17027 or equivalent.

The depth of relief of the Form Liner Textured Surface is limited to $\frac{3}{4}$". The relief should not compromise the reinforcement clearance in the Parapet.

FILE NAME =

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME =	DESIGNED JJI	REVISED -
	CHECKED SRT	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE =	CHECKED SRT	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
GRACE STREET

ARCHITECTURAL TREATMENT
STRUCTURE NUMBER 022-3120
SHEET NO. 21 OF 25 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	73
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/20/06
Date Completed 6/20/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65,946

COUNTY DuPage LOCATION West of Grace Street S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 1
Station _____
Offset _____ ft
Surface Elev. 720.64 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling Dry to 10.0'
at Completion Wash
after 48 Hrs. 709.6

DEPTH	BLOWS	Qu tsf	W %	DEPTH	BLOWS	Qu tsf	W %
FILL - Black clayey Topsoil 720.14							
	2 2 5	B 1.8 15%	24.3	Stiff gray SILTY CLAY LOAM, occasional sand seams, trace gravel, moist A-6	3 4 6	B 1.3 15%	18.1
FILL - Brown, gray and black CLAY, trace gravel, moist to very moist A-6/A-7-6	2 3 4	B 1.3 15%	29.5	692.64			
-5					3 6 7	B 2.2 15%	16.7
715.14				-30			
	2 3 4	P 1.25	43.5	Very stiff gray CLAY, trace gravel, moist A-6/A-7-6			
Stiff to soft black ORGANIC CLAY, very moist A-7-6					7 9 8	B 3.8 15%	22.1
(Qp = 0.75 tsf)	2 3 3	B 0.4 15%	44.3	-35			
-10 710.14				683.64			
	1 2 2	B 1.4 15%	28.5				
Stiff brown and gray CLAY, very moist to moist A-7-6				Stiff gray CLAY, trace gravel, moist A-6	3 5 7	B 1.1 15%	17.2
	2 3 5	B 1.9 15%	27.4	-40			
-15 705.14							
Stiff gray CLAY LOAM, little gravel, occasional sand seams, moist A-6	5 7 10	P 1.75	15.2	678.64			
702.64				Very stiff gray CLAY, trace gravel, moist A-6	12 8 8	B 3.3 15%	13.6
	4 5 7	B 1.8 15%	14.5	-45			
-20 Stiff gray CLAY, trace gravel, moist A-6				673.64			
	3 5 7	B 1.2 15%	18.3	Medium stiff to stiff gray CLAY, trace gravel, moist A-6			
					3 4 5	B 1.0 15%	16.0
695.64 -25				-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 65946.GPJ IDOT.GDT 5/14/09

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/20/06
Date Completed 6/20/06

STRUCTURE NO. _____
ROUTE _____
SECTION _____
COUNTY DuPage

Boring No. 1
Station _____
Offset _____ ft
Elevation 670.64 ft

STRUCTURE NO. _____
ROUTE _____
SECTION _____
COUNTY DuPage

Elevation 645.64 ft

DEPTH	BLOWS	Qu tsf	W %	DEPTH	BLOWS	Qu tsf	W %
Medium stiff to stiff gray CLAY, trace gravel, moist A-6							
668.64							
Med. dense gray SAND and GRAVEL, saturated A-1-a	12 11 13		11.3				
-55				-80			
663.64							
Stiff gray CLAY, little gravel, moist A-6	11 9 11	B 1.5 15%	12.3				
-60				-85			
658.64							
Very dense gray SAND, trace gravel, saturated A-1-b	13 26 27		18.5				
-65				-90			
653.64							
Dense gray SILT, moist A-4	17 21 23		20.1				
-70				-95			
648.64							
Med. dense gray SILTY LOAM, occasional sand seams, moist A-4	4 8 6		21.9				
645.64 -75				-100			

CME 750 ATV Drill Rig (#275)
CME Automatic Hammer
Rotary Wash Drill
End of Boring at 75.0'

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 65946.GPJ IDOT.GDT 5/14/09

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/22/06
Date Completed 6/23/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65,946

COUNTY DuPage LOCATION East of Grace Street S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 2
Station _____
Offset _____ ft
Surface Elev. 719.15 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling Dry to 10.0'
at Completion Wash
after _____ Hrs. _____

DEPTH	BLOWS	Qu tsf	W %	DEPTH	BLOWS	Qu tsf	W %
FILL - Black clayey Topsoil 718.65							
	4 5 6	P 4.5	15.9		4 7 8	B 1.8 15%	18.0
FILL - Dark brown and brown CLAY, trace gravel, moist A-6/A-7-6	2 2 2	P 2.5	21.0				
-5 713.65					4 5 8	B 2.2 15%	16.3
FILL - Dark brown and black CLAY, very moist A-6/A-7-6	4 5 6	B 0.7 15%	28.8	-30 Stiff to very stiff gray CLAY, trace gravel, moist A-6			
(Qp = 1.5 tsf) 711.15							
Medium stiff black ORGANIC CLAY, very moist A-7-6 (Qp = 1.0 tsf)	2 3 4	B 0.6 15%	31.9		5 7 11	B 3.1 15%	17.3
-10 708.65				-35			
Soft brown and gray CLAY with organic seams, very moist A-7-6 (Disturbed Sample)	2 2 3	P 0.5	50.4	682.15			
706.15				Stiff gray CLAY, trace to little gravel, moist A-6	4 3 6	B 1.6 15%	14.7
Soft brown SANDY LOAM, trace gravel, moist A-4	2 2 3	B 0.4 15%	14.9 19.3	-40			
704.65							
Loose gray clayey SAND, very moist A-2-4							
-15 703.65							
	2 2 2	B 0.8 15%	18.2	677.15			
Medium stiff gray CLAY LOAM, trace gravel, moist A-6/A-4					6 8 13	B 1.1 15%	8.2
	2 3 5	B 0.8 15%	18.6	-45			
-20 698.65				Stiff to medium stiff gray CLAY LOAM, occasional sand seams, little to some gravel, moist A-4			
Very stiff to stiff gray CLAY, trace gravel, moist A-6	4 7 11	B 2.4 15%	15.8				
					9 8 10	B 0.9 15%	13.8
	3 5 6	B 2.0 15%	17.6	-50			
-25 694.15				669.15			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 65946.GPJ IDOT.GDT 5/14/09

FILE NAME = w:\706-004_lombard - grt bridges phase ii\cadd sheets\structural\grace\022312B-022-SOILBORINGLOGS.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	SOIL BORING LOGS STRUCTURE NO. 022-3120 SHEET NO. 22 OF 25 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED SRT	REVISED -				06-00151-00-BR	DuPAGE	201	74
	PLOT DATE = 7/26/2011	DRAWN GM	REVISED -					CONTRACT NO. 63568		
		CHECKED SRT	REVISED -					ILLINOIS FED. AID PROJECT		

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/22/06
Date Completed 6/23/06

STRUCTURE NO. _____
ROUTE _____
SECTION _____
COUNTY DuPage

Boring No. 2
Station _____
Offset ft
Elevation 669.15 ft

DEPTH	BLOWS	Qu tsf	W %
Stiff to medium stiff gray CLAY LOAM, trace gravel, moist A-6/A-4			
667.15			
	15 17 17		20.3
-55			
Dense gray SILTY LOAM, trace to little gravel, moist A-4			
	18 13 14	S 2.4 15%	14.7
-60			
657.15			
Dense gray fine to medium SAND, little gravel, saturated A-1-b			
	16 17 20		16.1
-65			
652.15			
	18 21 28		20.5
-70			
Dense to very dense gray fine SAND, trace gravel, saturated A-3			
	19 25 25		20.9
644.15 -75			

Elevation 644.15 ft

DEPTH	BLOWS	Qu tsf	W %
-80			
-85			
-90			
-95			
-100			

CME 750 ATV Drill Rig (#275)
CME Automatic Hammer

Rotary Wash Drill

End of Boring at 75.0'

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 65946.GPJ IDOT.GDT 5/14/09

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09
Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls
SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695
COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 201
Station _____
Offset ft
Surface Elev. 715.70 ft

DEPTH	BLOWS	Qu tsf	W %
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-7-6			
	3 2 4	P 3.0	26.1
	3 3 5	P 3.0	18.5
-5			
710.20			
Very stiff brown and gray CLAY, trace gravel, moist (CL) A-7-6			
	2 3 3	P 2.5	22.7
707.70			
Stiff brown and gray CLAY, little gravel, moist (CL) A-6	ST	B 1.47	21.4
-10			
705.20			
Stiff to very stiff gray CLAY, little gravel, moist (CL) A-6			
	2 2 2	B 1.82 15%	19.2
	ST	B 3.25	15.4
-15			
	5 7 7	B 1.93 15%	18.6
	5 5 6	P 2.0	16.9
695.70 -20			
End of Boring at 20.0'			
-25			

Surface Water Elev. _____
Groundwater Elev.:
when drilling Dry
at Completion Dry
after _____ Hrs. _____

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 73695.GPJ IDOT.GDT 10/19/09

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09
Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls
SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695
COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 202
Station _____
Offset ft
Surface Elev. 716.00 ft

DEPTH	BLOWS	Qu tsf	W %
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-6			
	4 6 8	P 4.5+	15.0
713.00			
Black clayey TOPSOIL, moist (OL) A-7-6			
	5 7 7		25.9
711.00 -5			
Very sitff brown and gray CLAY, little gravel, moist (CL) A-6			
	ST	B 2.25	19.2
708.00			
Very stiff to stiff gray CLAY, little gravel, occasional silt seams, moist (CL) A-6			
	ST	B 2.21	18.2
-10			
	4 5 6	P 2.25	15.5
	4 5 5	B 1.82 15%	17.0
-15			
	4 5 5	P 2.75	16.6
	4 6 8	B 1.89 15%	17.7
696.00 -20			
End of Boring at 20.0'			
-25			

Surface Water Elev. _____
Groundwater Elev.:
when drilling 708.0
at Completion 703.0
after _____ Hrs. _____

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 73695.GPJ IDOT.GDT 10/19/09

FILE NAME = w:\756-004_lombard - gwt bridges phase ii\cadd sheets\structural\grace\022312O-B23-SOILBORINGLOGS.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	SOIL BORING LOGS STRUCTURE NO. 022-3120
		CHECKED SRT	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		SHEET NO. 23 OF 25 SHEETS
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	75
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 203
Station _____
Offset ft
Surface Elev. 714.00 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling 708.5
at Completion 705.0
after _____ Hrs. _____

DEPTH	BLOWS	Qu tsf	W %
FILL - Brown and black CLAY, trace gravel, moist (CL) A-7-6			
712.50			
FILL - Brown SAND, little gravel, moist (SP) A-2-4	4 5 5		18.4
710.50			
Very stiff dark brown CLAY, trace organic, moist (CL/CH) A-7-6	3 4 5	P 2.0	30.7
-5			
708.50			
Soft brown and gray CLAY, trace gravel, very moist (CL) A-7-6	ST	B 0.5	25.2
706.00			
Med. stiff to stiff gray CLAY, little gravel, very moist (CL) A-6	2 3 4	P 1.25	19.1
-10			
	3 3 5	B 0.96 15%	17.9
	2 3 5	P 1.0	17.4
-15			
698.50			
Very stiff gray CLAY, little gravel, moist (CL) A-6	4 5 6	B 2.15 15%	15.9
	5 7 9	P 2.5	15.9
694.00 -20			
End of Boring at 20.0'			
-25			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 7X6X6.GPJ IDOT.GDT 10/19/09

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 204
Station _____
Offset ft
Surface Elev. 712.70 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling 709.7
at Completion 708.7
after _____ Hrs. _____

DEPTH	BLOWS	Qu tsf	W %
FILL - Black clayey TOPSOIL (OL)			
711.90			
FILL - Brn SANDY LOAM, tr Asphalt, moist (SC/GC) A-2-4	10 14 17		7.4 4.9
710.70			
FILL - Brn SAND, little gravel, moist to wet (SP)			
709.70			
FILL - Brn SAND and GRAVEL, saturated (SP/GP) A-2-4	7 6 7		10.4
-5			
	4 3 3		12.7
	1 4 2		13.9
702.70 -10			
End of Boring at 10.0'			
-15			
-20			
-25			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 7X6X6.GPJ IDOT.GDT 10/19/09

FILE NAME = w:\756-0004_lombard - gwt bridges phase ii\cadd sheets\structural\grace\022312B-024-SOILBORINGLOGS.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJI	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	SOIL BORING LOGS STRUCTURE NO. 022-3120	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED SRT	REVISED -				06-00151-00-BR	DuPAGE	201	76
	PLOT SCALE =	DRAWN GM	REVISED -						CONTRACT NO. 63568	
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		SHEET NO. 24 OF 25 SHEETS			ILLINOIS	FED. AID PROJECT	

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/16/09
Date Completed 2/16/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72,921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 101
Station _____
Offset _____ ft
Surface Elev. 723.50 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling 707.5
at Completion 707.5
after _____ Hrs. _____

DEPTH	BLOWS	Qu tsf	W %
FILL - Dark brown CLAY, trace gravel, little organic, moist (CL) A-7-6	2 3 5	P 2.0	25.1
720.50			
FILL - Black CLAY, trace to little organic, very moist (CL/CH) 719.50 A-7-6	3 4 5	P 1.0/3.0	36.1 18.8
-5			
FILL - Brown CLAY, trace gravel, moist (CL) A-6	3 3 4	P 2.0	17.7
	4 4 6	P 2.25	22.2
-10			
713.00			
Stiff brown ORGANIC CLAY, very moist (OL/OH) A-7-6	3 3 4	P 1.5	62.5
710.50			
Medium stiff brown and gray CLAY, trace gravel, moist (CL) A-7-6	2 2 2	P 0.75	24.6
-15			
708.00			
Stiff to very stiff brown and gray CLAY, little gravel, occasional sand seams, very moist to moist (CL) A-6	3 4 6	P 1.25	18.4
	4 5 6	P 2.5	14.5
703.50 -20			
End of Boring at 20.0'			
Diedrich D-50 Track ATV Rig (#314) CME Automatic Hammer			
-25			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 72921.GPJ IDOT.GDT 5/14/09

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/17/09
Date Completed 2/17/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72,921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 102
Station _____
Offset _____ ft
Surface Elev. 731.20 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling Dry
at Completion Dry
after _____ Hrs. _____

DEPTH	BLOWS	Qu tsf	W %
FILL - Brown CLAY, trace gravel, moist (CL) A-6 730.40			
FILL - Black Asphalt Pieces	7 7 9		
728.20			
FILL - Dark brown SAND and GRAVEL, trace clay, moist (SP) A-1	6 5 5		9.1
-5			
725.70			
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-7-6	3 4 6	P 2.5	28.9
	2 3 4	P 2.0	22.2
-10			
720.70			
FILL - Brown CLAY, trace gravel, moist (CL) A-7-6	4 5 7	P 2.5	24.6
	5 5 9	P 3.25	24.2
-15			
715.70			
Very stiff dark gray CLAY, trace organic, moist (CL/CH)	3 4 6	P 2.0	35.2
713.20			
Stiff black ORGANIC CLAY, very moist (OL/OH) A-7-6	3 5 5	P 1.5	61.0
711.20 -20			
Very stiff brown and gray CLAY, little gravel, moist (CL) A-7-6	5 6 8	P 2.75	18.3
	3 5 6	P 2.25	17.2
-25			
705.70			
Very stiff to hard gray CLAY, little gravel, moist (CL) A-6	6 6 7	P 3.0	15.6
	5 7 9	P 4.5	11.2
701.20 -30			
End of Boring at 30.0'			
Diedrich D-50 Track ATV Rig (#314) CME Automatic Hammer			
-35			
-40			
-45			
-50			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 72921.GPJ IDOT.GDT 5/14/09

FILE NAME = w:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\grace\022312B-025-SOILBORINGLOG.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED JJT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL GRACE STREET	SOIL BORING LOGS STRUCTURE NO. 022-3120 SHEET NO. 25 OF 25 SHEETS
		CHECKED SRT	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		
	PLOT DATE = 7/26/2011	CHECKED SRT	REVISED -		

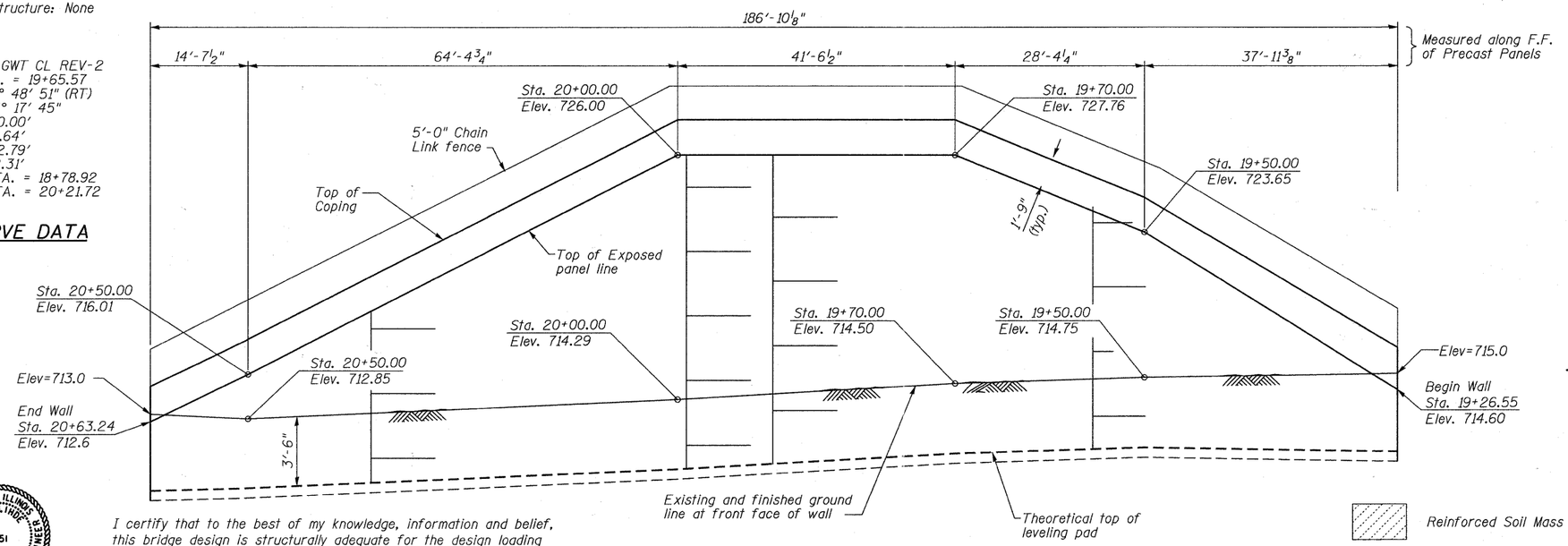
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	77
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

Bench Mark: - Brass disk, DuPage County, West side of Grace Street beyond sidewalk. Approx. 180' South of Prairie Ave. Elev. 712.12

Existing Structure: None

CURVE GWT CL REV-2
PI STA. = 19+65.57
Δ = 81° 48' 51" (RT)
D = 57° 17' 45"
R = 100.00'
T = 86.64'
L = 142.79'
E = 32.31'
P.C. STA. = 18+78.92
P.T. STA. = 20+21.72

CURVE DATA



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design Specifications."

STATE OF ILLINOIS
JOEL L. THIDE
5051
ITASCA
LICENSED STRUCTURAL ENGINEER

DATE SIGNED: 7-26-11
EXP. DATE: 11-30-12

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

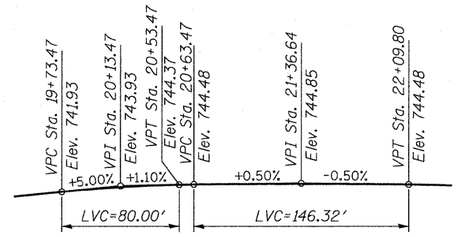
PRECAST UNITS

f'c = 4,500 psi (Precast Panels)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 interms

LOADING H20

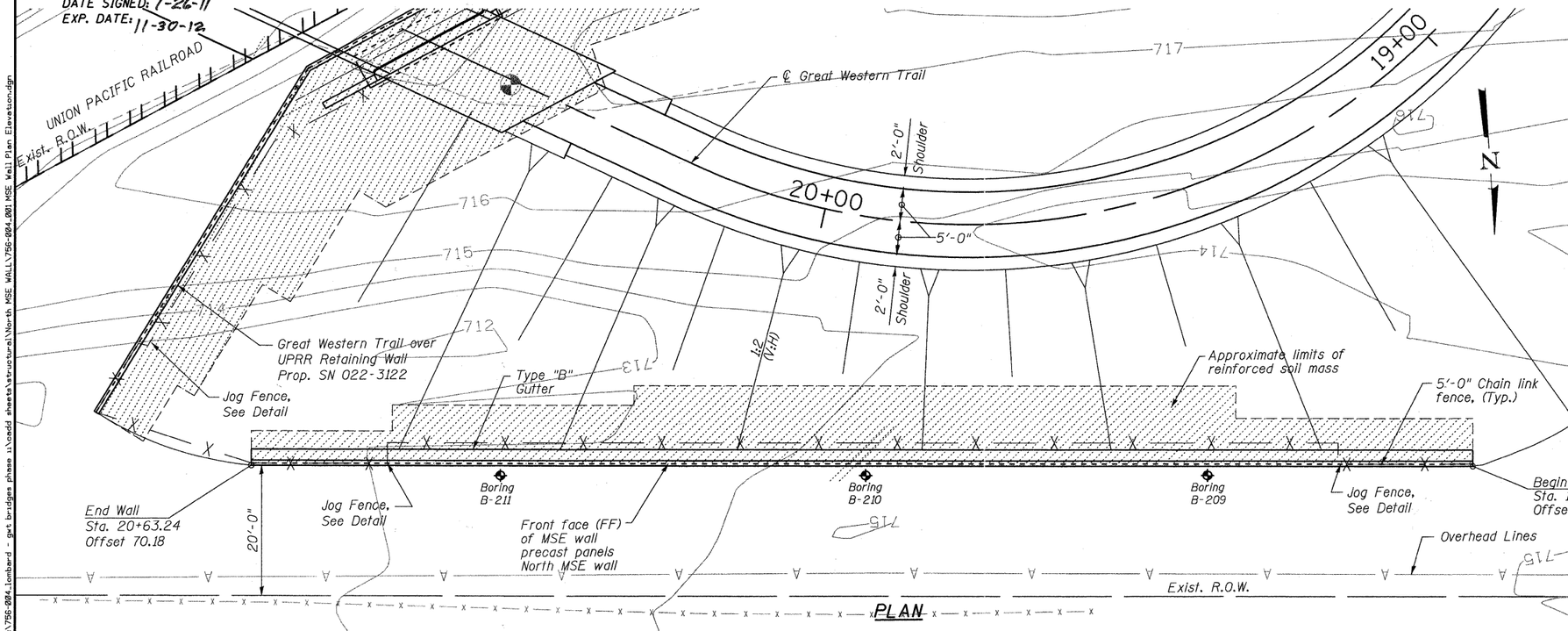


PROFILE GRADE TRAIL

INDEX OF SHEETS

ELEVATION

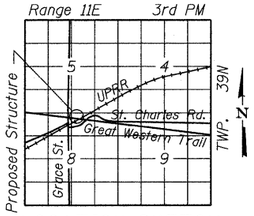
(Looking @ Front Face of Wall)



PLAN

Notes:

1. See Special Provisions for Mechanically Stabilized Earth Retaining Wall for design and construction requirements.
2. Cast-in-place concrete and reinforcing steel, epoxy coated, required for coping will be included in payment for Mechanically Stabilized Earth Retaining Wall, see Special provisions.
3. See Sheets 43 thru 45 of 201 for fence details.
4. Mechanically Stabilized Earth retaining wall supplier to coordinate location and lengths of soil reinforcement with light pole, conduit, and unit duct locations shown on Lighting Plans to avoid conflicts. Any load transfer system required shall be detailed and shown on Mechanically Stabilized Earth retaining wall Shop Drawings.
5. For Fence and Gutter limits and details, see Roadway Plans.



LOCATION SKETCH

Note: Wall offsets are measured from the ℄ Trail to the front face of precast panels.

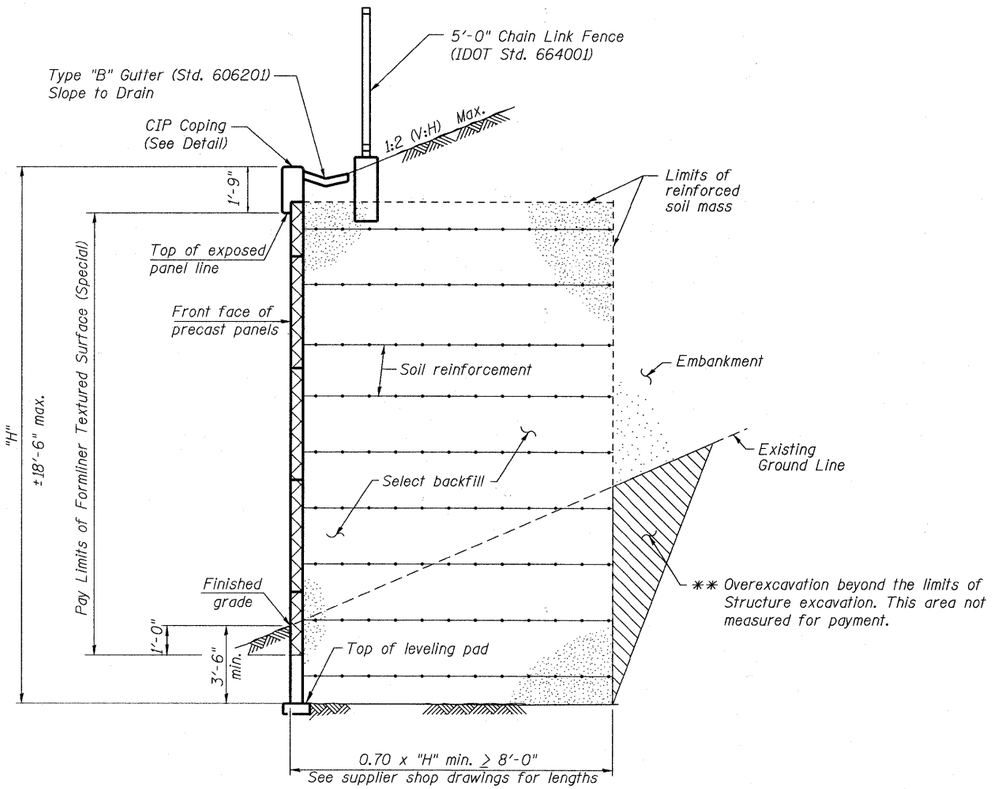
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -
	PLOT SCALE =	CHECKED JJI	REVISED -
	PLOT DATE = 7/26/2011	DRAWN GM	REVISED -
		CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
NORTH MSE WALL

GENERAL PLAN
STRUCTURE NO. 022-3123
SHEET NO. 1 OF 3 SHEETS

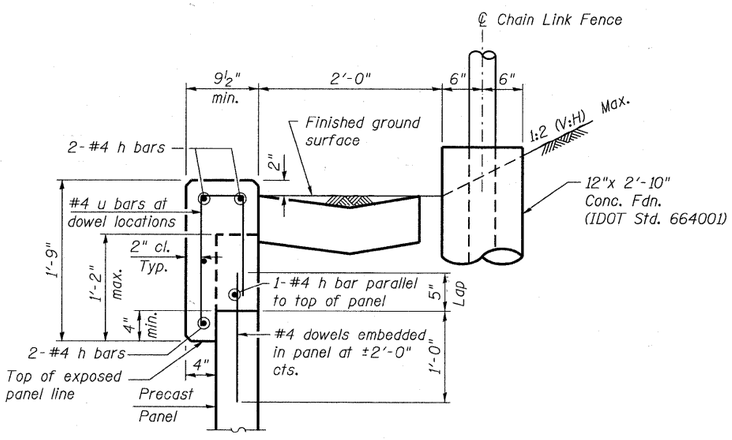
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	78
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

FILE NAME = s:\756-004-lombard - gwt bridges phase ii\cadd sheets\structure\North MSE WALL\756-004-001 MSE Wall Plan Elevation.dgn



SECTION THRU MSE WALL

** Backfill overexcavation w/same material as used for select fill



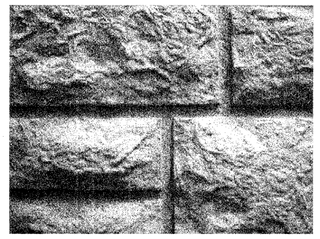
SECTION THRU MSE WALL

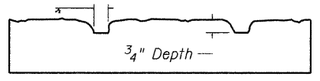
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	261
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	2161
Anti-Graffiti Protection System	Sq. Ft.	1694
Form Liner Texture Surface, Special	Sq. Ft.	1694

Notes:

1. See Special Provisions for Mechanically Stabilized Earth Retaining Wall for design and construction requirements.
2. Cast-in-place concrete and reinforcing steel, epoxy coated required for coping will be included in payment for Mechanically Stabilized Earth Retaining Wall. See Special Provisions.





FORM LINER TEXTURE DETAIL

See Special Provisions

Note:

Form Liner Textured Surface (Special) to be used on front face of precast panels. Utilize Fitzgerald Formliners form liner pattern #17027 or equivalent.

The depth of relief of the Form Liner Textured Surface is limited to ¾". The relief should not compromise the reinforcement clearance in the precast.

FILE NAME = w:\756-004_lombard - gw1 bridges phase 1\cadd sheets\structural\North MSE WALL\756-004-002 SECTION.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL NORTH MSE WALL	GENERAL NOTES, BILL OF MATERIAL, MSE WALL SECTION STRUCTURE NO. 022-3123	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED JJI	REVISED -				06-00151-00-BR	DuPAGE	201	79
	PLOT SCALE =	DRAWN GM	REVISED -						CONTRACT NO. 63568	
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		SHEET NO. 2 OF 3 SHEETS			ILLINOIS	FED. AID PROJECT	

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls Date Started 7/14/09 Date Completed 7/14/09

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 209
Station _____
Offset ft
Surface Elev. 714.90 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling _____
at Completion 706.9
after _____ Hrs. 706.9

	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL (OL) A-7-6				
713.90				
Very stiff brown CLAY, little gravel, moist (CL) A-6		3 3 5	P 2.25	15.6
		4 4 5	P 3.5	17.3
	-5			
		5 6 8	P 3.75	17.2
706.90				
Very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6		4 6 6	B 3.0	15.7
	-10			
		5 7 7	P 3.0	16.2
702.40				
End of Boring at 12.5'	-15			
	-20			
	-25			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 72695.GPJ IDOT.GDT 10/19/09

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls Date Started 7/14/09 Date Completed 7/14/09

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 210
Station _____
Offset ft
Surface Elev. 714.80 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling 704.3
at Completion 704.8
after _____ Hrs. _____

	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL (OL) A-7-6				
713.70				
Very stiff brown CLAY, little gravel, moist (CL) A-6		3 3 4	P 2.75	21.1
		4 5 6	B 1.95 15%	19.6
	-5			
		3 6 7	P 3.25	22.1
706.80				
Very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6		6 6 7	P 2.75	16.9
	-10			
		4 5 8	B 2.22 15%	16.2
		5 5 6	P 3.25	16.6
699.80	-15			
End of Boring at 15.0'	-20			
	-25			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 72695.GPJ IDOT.GDT 10/19/09

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls Date Started 7/14/09 Date Completed 7/14/09

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. 211
Station _____
Offset ft
Surface Elev. 713.70 ft

Surface Water Elev. _____
Groundwater Elev.:
when drilling 705.7
at Completion 706.7
after _____ Hrs. _____

	DEPTH	BLOWS	Qu tsf	W %
Black clayey TOPSOIL (OL) A-7-6				
712.70				
Very stiff brown CLAY, trace gravel, moist (CL) A-7-6		2 3 4	P 2.75	23.9
710.70				
Very stiff to hard brown and gray CLAY, little gravel, moist (CL) A-6		3 4 6	P 3.5	16.3
	-5			
		4 7 9	P 4.5+	15.4
705.70				
Very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6		5 5 7	P 3.25	14.0
	-10			
		4 6 8	P 3.0	17.0
701.20				
End of Boring at 12.5'	-15			
	-20			
	-25			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ILDOT_BORING 72695.GPJ IDOT.GDT 10/19/09

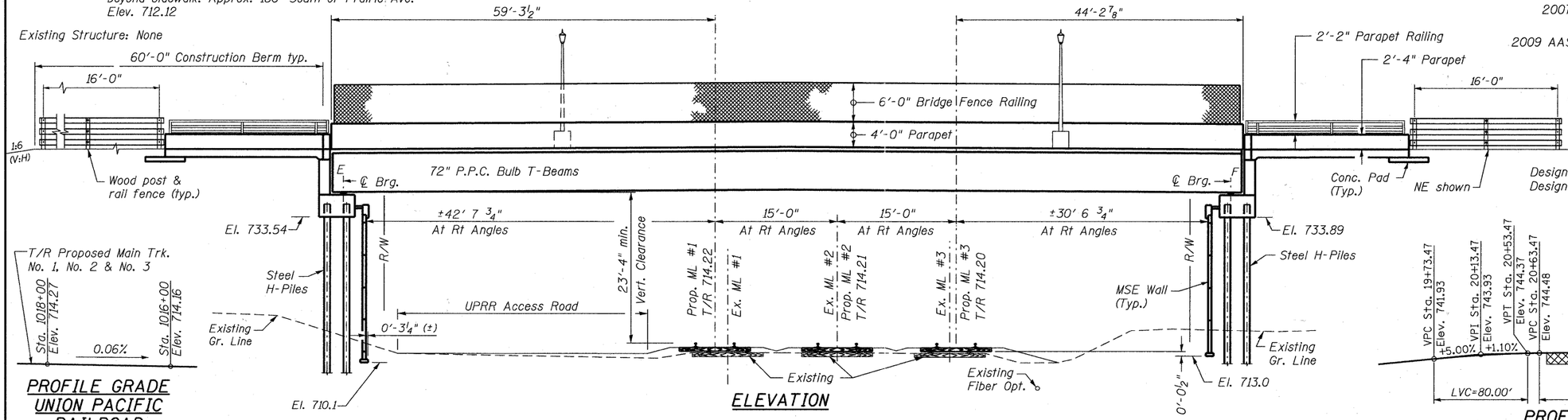
FILE NAME = s:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\North MSE WALL\756-004_003 BORING LOGS 209-211.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL NORTH MSE WALL	BORING LOGS 209, 210 & 211 STRUCTURE NO. 022-3123 SHEET NO. 3 OF 3 SHEETS
		CHECKED JJI	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	80
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

Bench Mark: - Brass disk, DuPage County, West side of Grace Street beyond sidewalk. Approx. 180' South of Prairie Ave. Elev. 712.12

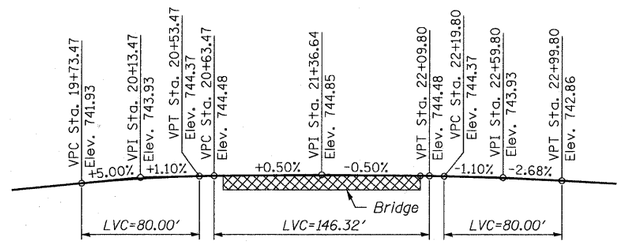
Existing Structure: None



PROFILE GRADE UNION PACIFIC RAILROAD

(Looking North)

ELEVATION



PROFILE GRADE TRAIL

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

2009 AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges

LOADING H20

Pedestrian Live Load 90#/sq. ft.
Allow 25#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.087
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.154
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

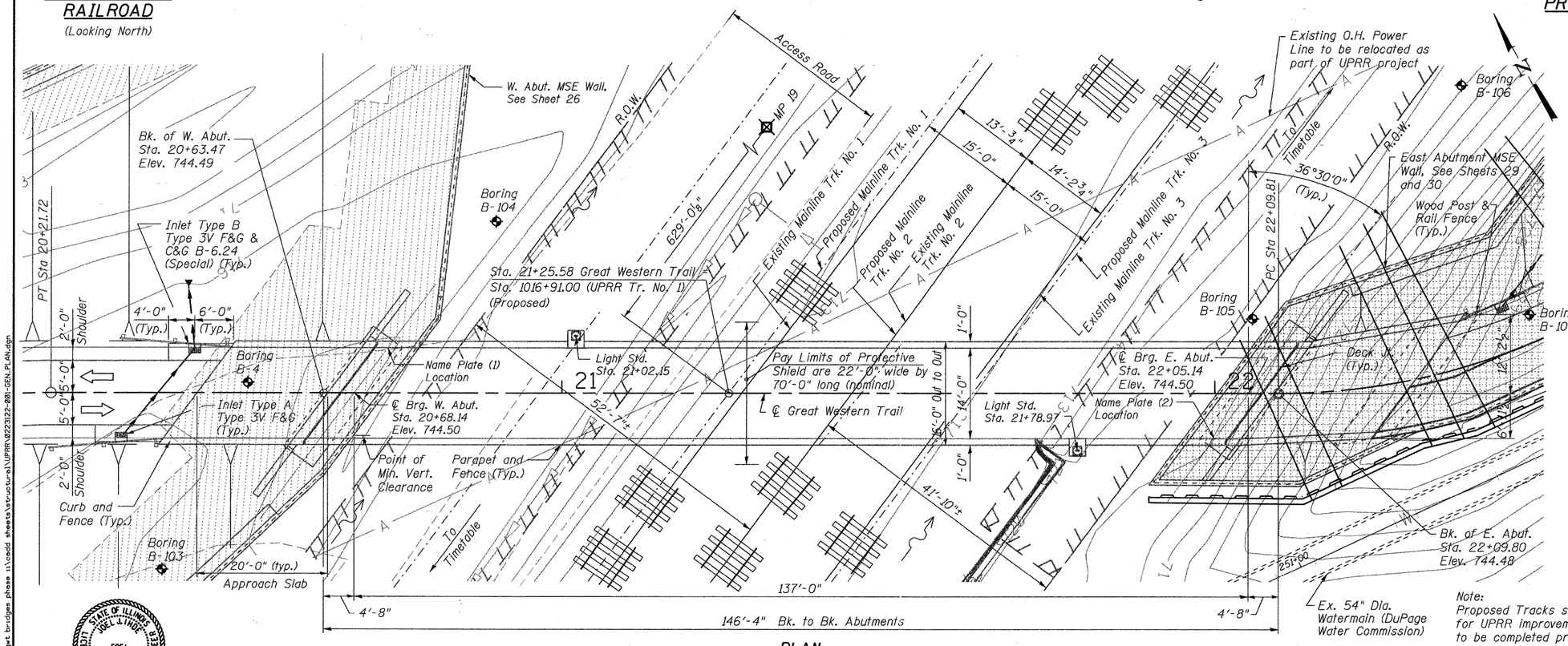
f'c = 7,000 psi
f'ci = 6,000 psi
fpu = 270,000 psi (1/2" ϕ low lax. strands)
fpbt = 201,960 psi (1/2" ϕ low lax. strands)
f'c = 4,500 psi (Precast Panels)

CURVE DATA

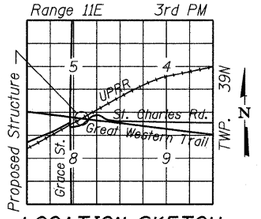
Δ = 66°48'32" (LT)
D = 57°17'45"
T = 65.95'
L = 116.60'
E = 19.79'
R = 100.00'
P.C. = Sta. 22+09.81
P.T. = Sta. 23+26.41
P.I. = Sta. 22+75.76

Approximate Limit of Reinforced Soil Mass

Approximate Limit of Aggregate Column Ground Improvement & Reinforcement Soil Mass



PLAN



LOCATION SKETCH

Note:
Proposed Tracks shown are for UPRR improvement project to be completed prior to the GWT project.

Note:
The proposed bridge structure will not change the quantity or characteristics of the flow in railroad ditches and structures.

STATE OF ILLINOIS JOEL T. HAGE 5051 ITASCA REGISTERED STRUCTURAL ENGINEER

DATE SIGNED: 7-26-11
EXP. DATE: 11-30-12

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design Specifications."

RAILROAD INFORMATION

Passenger Trains = Approx. 51 Per Day @ 70 mph
Freight Trains = Approx. 60 Per Day @ 70 mph

UPRR Information:

Station: Lombard, Il.
Geneva Subdivision
MP 19.13

FILE NAME = w:\706-004_lombard - gwt bridges phase 1\cadd sheets\structural\UPRR\022322-201-GEN_PLAN.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -
		CHECKED JJI	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

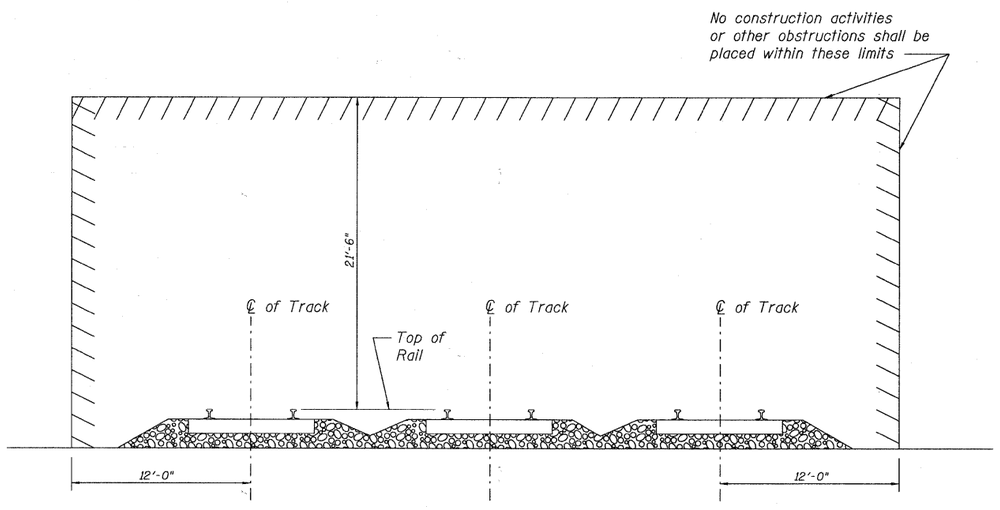
GENERAL PLAN
STRUCTURE NUMBER 022-3122
SHEET NO. 1 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	81
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	296	70	336
Structure Excavation	Cu. Yd.	-	1,945	1,945
Concrete Structures	Cu. Yd.	-	60.9	60.9
Concrete Superstructure	Cu. Yd.	106.7	50.4	157.1
Concrete Superstructure, Special	Cu. Yd.	44.7	8.5	53.2
Furnishing And Erecting Precast Prestressed Concrete I-Beams, 72 In.	Foot	415.5	-	415.5
Reinforcement Bars, Epoxy Coated	Pound	26,440	12,870	39,310
Bar Splicers	Each	-	42	42
Parapet Railing	Foot	88	101.3	189.3
Bridge Fence Railing	Foot	283.9	-	283.9
Furnishing Steel Piles HP 12X63	Foot	-	938	938
Driving Piles	Foot	-	938	938
Test Pile Steel HP 12X63	Each	-	2	2
Pile Shoes	Each	-	16	16
Name Plates	Each	2	-	2
Elastomeric Bearing Assembly, Type I	Each	3	-	3
Steel Bearing Assembly	Each	3	-	3
Preformed Joint Strip Seal	Foot	40.0	-	40.0
Concrete Sealer	Sq. Ft.	-	580	580
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	-	10,136	10,136
Anti-Graffiti Protection System	Sq. Ft.	2,929	9,662	12,591
Protective Shield	Sq. Yd.	172	-	172
Aggregate Column Ground Improvement Location 3	L. Sum	-	1	1
Form Liner Textured Surface, Special	Sq. Ft.	2,253	9,355	11,608
Permanent Steel Sheet Piling	Sq. Ft.	-	4455	4455



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

(NORMAL TO RAILROAD)

FIGURE 1

UNION PACIFIC RAILROAD
BUILT 20__ BY
VILLAGE OF LOMBARD
SEC. 06-00151-00-BR
STA. 21+36.64
STR. NO. 022-3122 LOADING H20

(2-Required)

NAME PLATE

See Std. 515001

UNION PACIFIC AND IDOT RAILROAD CROSSINGS GENERAL NOTES

Railroad Flagging Protection is required for all work within 25 feet of the nearest track. Call Kandice Miller at (312)496-4738 to coordinate flagging operations.

The Contractor's right of entry permit is required prior to beginning any work. It may take 30-45 days to obtain this permit.

J.U.L.I.E. does not cover railroad utilities. For utility locates call Kandice Miller at (312)496-4738 to coordinate utility locate operations.

Working window, Monday through Friday, 9:00 am - 3:30 pm. extended work windows are available on weekends, subject to approval from the local manager.

It is the Contractor's sole responsibility to coordinate with the Union Pacific Railroad whenever construction activity is within 25 feet of the Railroad ROW. The Contractor shall retain flagmen employed and designated by the Union Pacific Railroad to monitor on-coming train traffic, and advise Contractor personnel when activity on or near the railroad-right-of-way may proceed. This item will be paid for according to Article 107.12 and will be reimbursed according to Article 109.05.

GENERAL NOTES

Alternative bridge types not allowed.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to bridge construction above of the abutments bridge seats.

Area of Protective Shield is over the railroad, between temporary easements. See General Plan for pay limits.

Slipforming of parapets is not allowed.

Concrete Sealer shall be applied to the back of diaphrams, exposed surfaces of backwalls, bridge seats and front face of pile caps at the abutments.

Anti-Graffiti Protection System shall be applied at all locations "Form Liner Textured Surface, Special" is applied to. See Sheet 23.

See Sheets 43 thru 45 of 201 for fence details.

RAILROAD NOTES

All demolition within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations shall comply with the Railroad's Demolition requirements.

Erection over the Railroad's track shall be planned such that it enables the track(s) to remain open to traffic per Railroad requirements.

The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Railroad prior/to construction.

The proposed bridge structure shall not change the Quantity and/or characteristics of the flow in the Railroad ditches and/or drainage structures.

The contractor must submit a proposed method of erosion and sediment control and have the method approved by the Railroad prior to beginning any grading on the project site.

For Railroad coordination please refer to the Railroad's Coordination Requirements as part of the Specifications or Special Provisions of the project.

Temporary Construction Clearances, including false work clearances, shall comply with Figure 1.

All permanent clearances shall be verified before project closeout.

Railroad's review and approval of shoring, erection, and falsework are required. Allow minimum of four weeks for the review and approval of each round of submittal.

Any shoring system that impacts the Railroad's operation and/or supports the Railroad's embankment shall be designed and constructed per Railroad Guidelines for Temporary shoring.

Railroad requirements do not allow work within 50 feet of track centerline while a train passes the work site, and all personnel must clear the area within 25 feet of the track centerline and secure all equipment.

Contractor must call the UPRR Call Before You Dig number, (800) 336-9193, for location of fiber optics on UPRR ROW.

FILE NAME = w:\706-004_lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\022122-002-GEN_NOTES.dgn

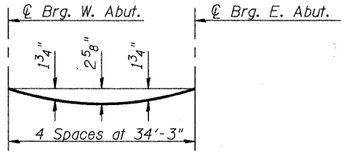
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

GENERAL NOTES, TOTAL BILL OF MATERIAL AND INDEX OF SHEETS
STRUCTURE NUMBER 022-3122
SHEET NO. 2 OF 37 SHEETS

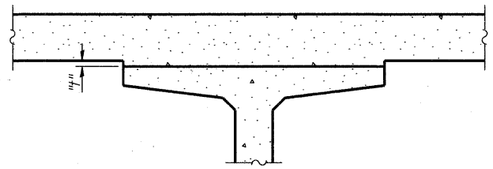
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	82
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



DEAD LOAD DEFLECTION DIAGRAM

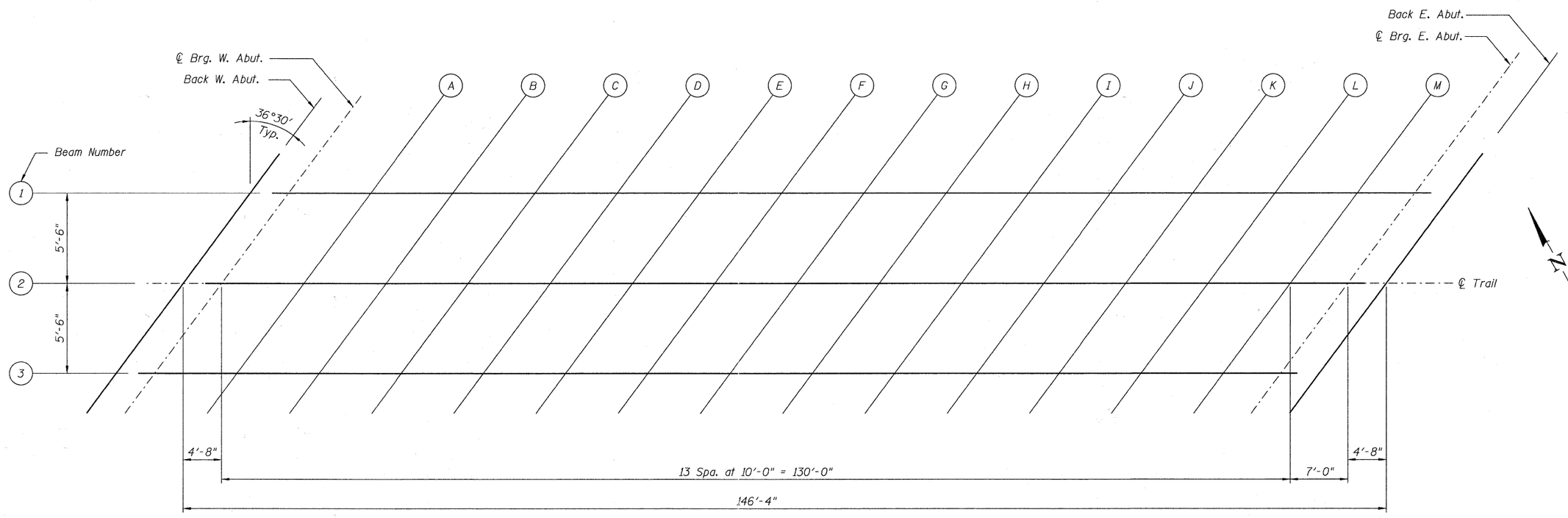
(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN

PBT-E 7-1-10

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -
		CHECKED JJI	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 022-3122
SHEET NO. 3 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	83
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

FILE NAME = w:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\022\3122-003-Top_of_Slab_Elev.dgn

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	20+67.54	-5.50	744.39	744.39
℄ Brg. W. Abut.	20+72.21	-5.50	744.41	744.41
A	20+82.21	-5.50	744.45	744.50
B	20+92.21	-5.50	744.48	744.58
C	21+02.21	-5.50	744.51	744.64
D	21+12.21	-5.50	744.53	744.70
E	21+22.21	-5.50	744.54	744.74
F	21+32.21	-5.50	744.55	744.76
G	21+42.21	-5.50	744.55	744.76
H	21+52.21	-5.50	744.54	744.75
I	21+62.21	-5.50	744.53	744.72
J	21+72.21	-5.50	744.51	744.67
K	21+82.21	-5.50	744.48	744.60
L	21+92.21	-5.50	744.44	744.52
M	22+02.21	-5.50	744.40	744.44
℄ Brg. E. Abut.	22+09.20	-5.50	744.37	744.37
Bk. E. Abut.	22+14.10	-5.42	744.35	744.35

BEAM 2, ℄ Trail & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	20+63.47	-0.00	744.48	744.48
℄ Brg. W. Abut.	20+68.41	-0.00	744.51	744.51
A	20+78.14	-0.00	744.55	744.60
B	20+88.14	-0.00	744.59	744.68
C	20+98.14	-0.00	744.62	744.75
D	21+08.14	-0.00	744.64	744.81
E	21+18.14	-0.00	744.66	744.85
F	21+28.14	-0.00	744.66	744.87
G	21+38.14	-0.00	744.67	744.88
H	21+48.14	-0.00	744.66	744.87
I	21+58.14	-0.00	744.65	744.84
J	21+68.14	-0.00	744.63	744.79
K	21+78.14	-0.00	744.61	744.73
L	21+88.14	-0.00	744.58	744.66
M	21+98.14	-0.00	744.54	744.57
℄ Brg. E. Abut.	22+05.13	-0.00	744.51	744.51
Bk. E. Abut.	22+09.80	0.00	744.48	744.48

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	20+59.40	5.50	744.35	744.35
℄ Brg. W. Abut.	20+64.07	5.50	744.37	744.37
A	20+74.07	5.50	744.42	744.46
B	20+84.07	5.50	744.46	744.55
C	20+94.07	5.50	744.49	744.62
D	21+04.07	5.50	744.51	744.68
E	21+14.07	5.50	744.53	744.73
F	21+24.07	5.50	744.54	744.75
G	21+34.07	5.50	744.55	744.76
H	21+44.07	5.50	744.55	744.75
I	21+54.07	5.50	744.54	744.73
J	21+64.07	5.50	744.52	744.68
K	21+74.07	5.50	744.50	744.63
L	21+84.07	5.50	744.47	744.55
M	21+94.07	5.50	744.44	744.47
℄ Brg. E. Abut.	22+01.06	5.50	744.41	744.41
Bk. E. Abut.	22+05.73	5.50	744.39	744.39

PBT-E1 7-1-10

FILE NAME = w:\756-004_lombard - gst bridges phase 1\cadd sheets\structural\UPRR\022122-004-Top_of_Slab_Elev.dgn

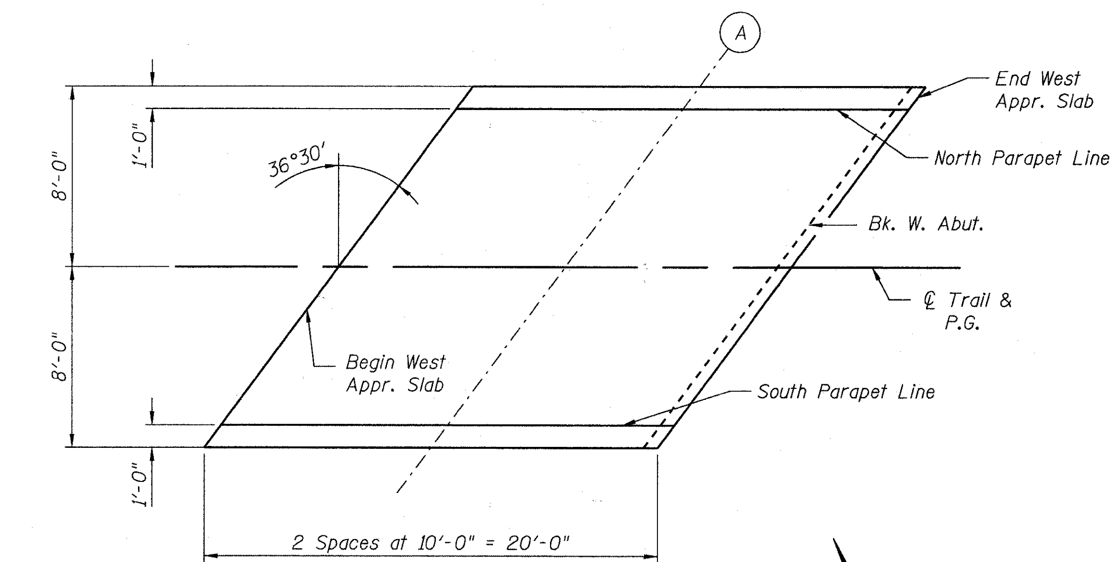
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

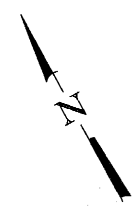
STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 022-3122
SHEET NO. 4 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	84
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



PLAN
(West Approach)



℄ TRAIL & P.G.

Location	Station	Offset	Theoretical Grade Elevations
Begin W. Appr. Slab	20+44.09	0.00	744.25
A	20+54.09	0.00	744.38
End W. Appr. Slab	20+64.09	0.00	744.49

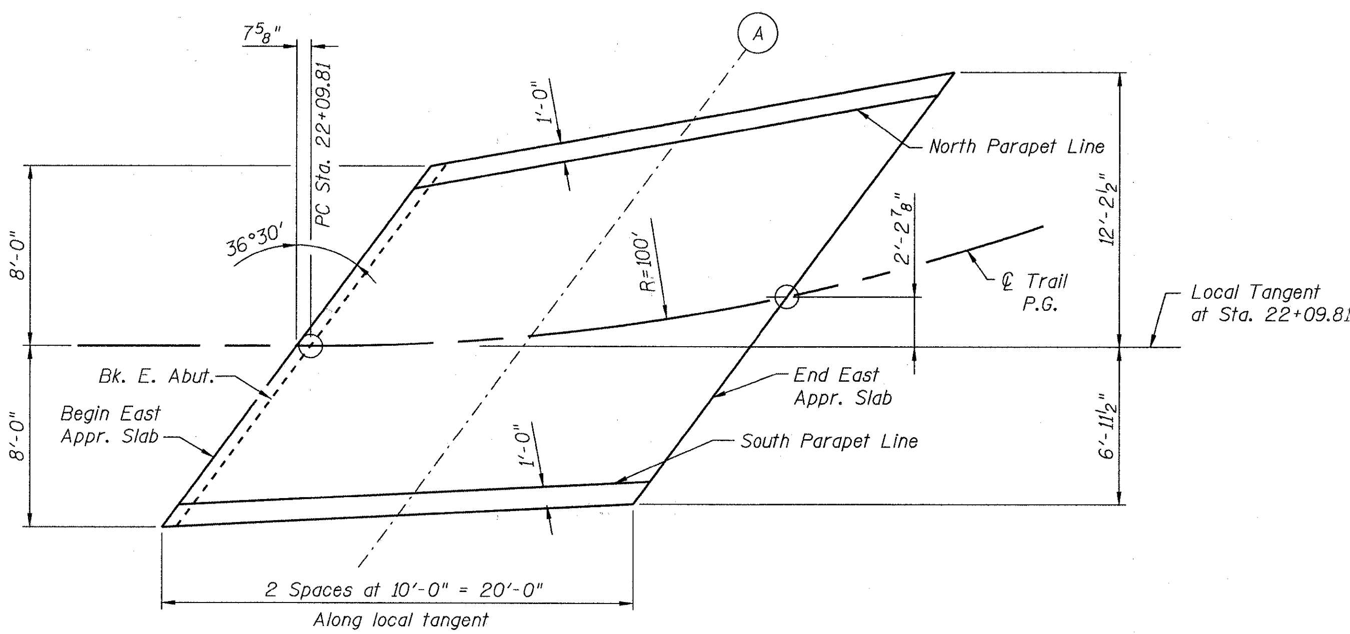
NORTH PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations
Begin W. Appr. Slab	20+49.27	-7.00	744.17
A	20+59.27	-7.00	744.29
End W. Appr. Slab	20+69.27	-7.00	744.36

SOUTH PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations
Begin W. Appr. Slab	20+38.91	7.00	744.01
A	20+48.91	7.00	744.17
End W. Appr. Slab	20+58.91	7.00	744.28

WEST APPROACH



PLAN
(East Approach)

℄ TRAIL & P.G.

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Slab	22+09.18	-0.00	744.49
A	22+19.18	-0.00	744.38
End E. Appr. Slab	22+31.00	-0.00	744.23

NORTH PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Slab	22+14.70	-6.89	744.28
A	22+25.46	-7.66	744.14
End E. Appr. Slab	22+40.01	-7.00	743.96

SOUTH PARAPET LINE

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Slab	22+04.00	7.00	744.36
A	22+13.73	6.58	744.30
End E. Appr. Slab	22+23.85	7.00	744.18

EAST APPROACH

FILE NAME = w:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\0223122-005-Top_of_Appr_Slab_Elev.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 022-3122
SHEET NO. 5 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	85
		CONTRACT NO. 63568		
		ILLINOIS FED. AID PROJECT		

* Order a(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

142-#4 d(E) bars at 12" cts.
142-#6 d_1(E) bars at 12" cts.

16'-0" out to out deck
1'-0"
14'-0"
1'-0"
#6 x_1(E) and #6 x_2(E) bars between beams See West Diaphragm

2-#5 a_4(E) bars, bottom
2" at 50° F.
4-#5 a_5(E) bars at 6" cts., Top placed under longitudinal bars
3-#5 a_3(E) bars at 6" cts., Bottom between beams
Back of W. Abut.
℄ Trail & P.G.
*18-#5 a(E) bars at 7" cts. top
*13-#5 a(E) bars at 10" cts. bottom
202-#5 a(E) bars at 7" cts. top
142-#5 a(E) bars at 10" cts. bottom
14 x 5 -#5 b(E) equally spaced at ±12" cts. top of slab
16 x 6 -#5 b_1(E) bars spaced as shown in cross section. Bottom of slab
6"
2 x 5 -#5 b(E) bars top of slab
#6 x(E) bars at 6" cts. between beams see East Diaphragm
1-#6 d_6(E) in slab
Anchor bolts in slab. See pole base details
See sheet 14 of 37 for point block details, typ.
140'-11¼" end to end deck
36°30' Skew
Back of E. Abut.
2" at 50° F.
Fan 3-#5 a_6(E) bars bottom, northeast end southwest corners.
N

PLAN

MIN. BAR LAP
#5 bar = 3'-3"

Notes:
See sheet 8 of 37 for superstructure details and Bill of Material.
For Section A-A and B-B and diaphragm details see sheet 7 of 37.
Bars indicated thus 14 x 5-#5 etc. indicates 14 lines of bars with 5 lengths per line.
See sheet 8 of 37 for parapet reinforcement.
The top surface of the deck between Parapets shall be finished according to Article 423.06 of the Standard Specifications, except the surface shall be divided by grooves.
Application of Protective Coat shall be limited to the top surface of the bridge deck between parapets.
Bend d_2(E) and d_3(E) as required longitudinally to clear rail post anchor, maintain minimum reinforcement clearance.
Rotate d_4(E) bars as required to maintain minimum reinforcement clearance.
Parapet concrete to be paid for as Concrete Superstructure, Special.

℄ Light Pole
10"
Thread and cap end of conduit. When ready for wiring, replace cap with bushing.
Light pole (by others)
See electrical details
Stainless steel standard grade wire cloth-Type 304, 4 x 4 mesh 0.047" wire diameter.
Vibration isolation pad (by others)
2"
8"
Anchor rods (Dia. as specified for light pole) Provide 3 flat washers, 1 regular nut & 1 locknut for each rod. See Sheet 8 of 37.
Conduit See Lighting Plans
2'-8½"
5-#6 d_6(E) bars
3-#6 d_5(E) bars
Preferred location for conduit
d_6(E)
2"
11"

SECTION A-A

Top of parapet
℄ Fence Rail
2"
3¾"
10" (Typ.)
3"
1"
1'-2½"
1'-4"
5"
5"
2"
1'-2"
1'-2"
** 3-3/8" ϕ x4" Stainless steel flat head expansion anchors each side, countersunk
Top of pole base

VIEW B-B
Inside Face

Light Pole Base ℄
5"
℄ Light Pole & ℄
10"
1½" cl.
10"
℄ ½"x1'-4"x2'-4" ** Galvanize after fabrication according to AASHTO M111 See Elevation Inside Face
℄ Fence Rail
5"
d_5(E)
d_6(E)
3"
10"
1'-0"
Bolt circle to match light pole
A
B

PLAN
Parapet with Light Pole

** Cast included in Concrete Superstructure, Special

16'-0" out to out deck
1'-0"
14'-0" face to face parapets
1'-0"
10"
2"
7'-0"
7'-0"
6'-0"
slope ¼" per ft.
Total drop = 1¾"
slope ¼" per ft.
2¼" cl. (typ.)
℄ Great Western Trail
*** d_3(E)
2-#4 d_4(E) bars at Ea. Post
e(E) or e_1(E)
d_2(E)
4'-10¼"
4'-0"
3'-11"
1'-10"
Form Liner E. F. (Typ.)
d_1(E)
2½" PVC Conduit cast into Parapet each side of bridge (See Lighting Plans). Provide deflection and expansion fittings as required.
d(E)
1" (typ.)
Varies 1½" to 1¾"
b(E)
8" Slab
P.G. & Crown
2¼"cl. (±¼")
a(E)
Constr. Jt.
*** Turn hook to clear
9½"
1¾"
1" cl.
a(E)
b_1(E)
4" (typ.)
¾" drip notch full length (typ.)
5-#5 b_1(E) bars at 10" cts. typ. between beams
1'-1"
9" (typ.)
1
3
2'-6"
2 spaces at 5'-6" = 11'-0"
2'-6"

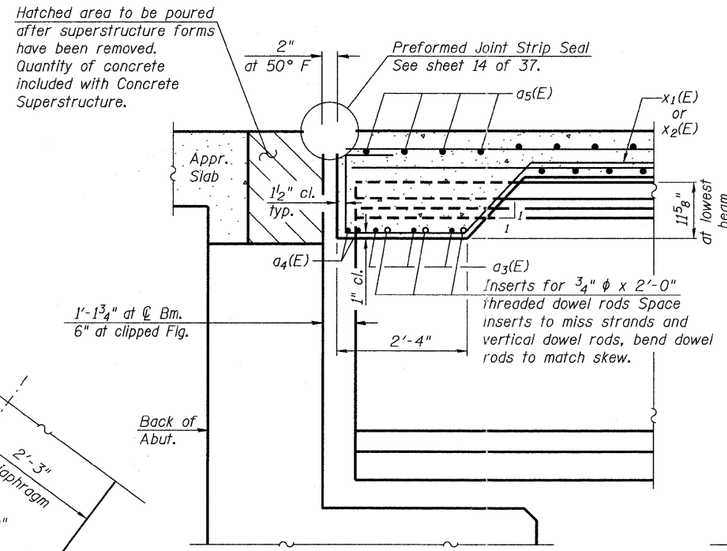
CROSS SECTON
(looking East)

Bridge Fence Railing

FILE NAME = w:\796-004-lombard - gwt bridges phase 1\road sheets\structural\UPRR\022122-026-Superstructure Plan.dgn

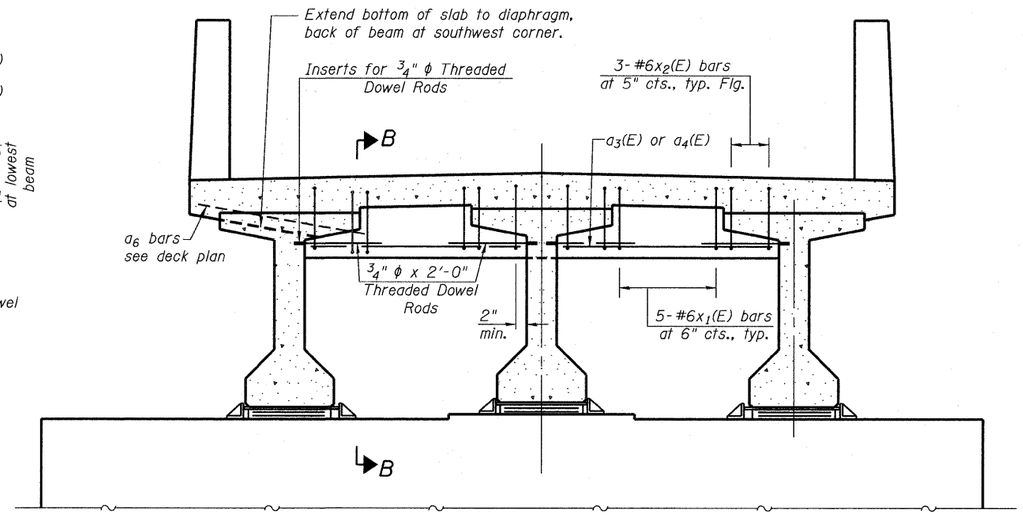
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	SUPERSTRUCTURE STRUCTURE NO. 022-3122 SHEET NO. 6 OF 37 SHEETS
		CHECKED JJI	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	86
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

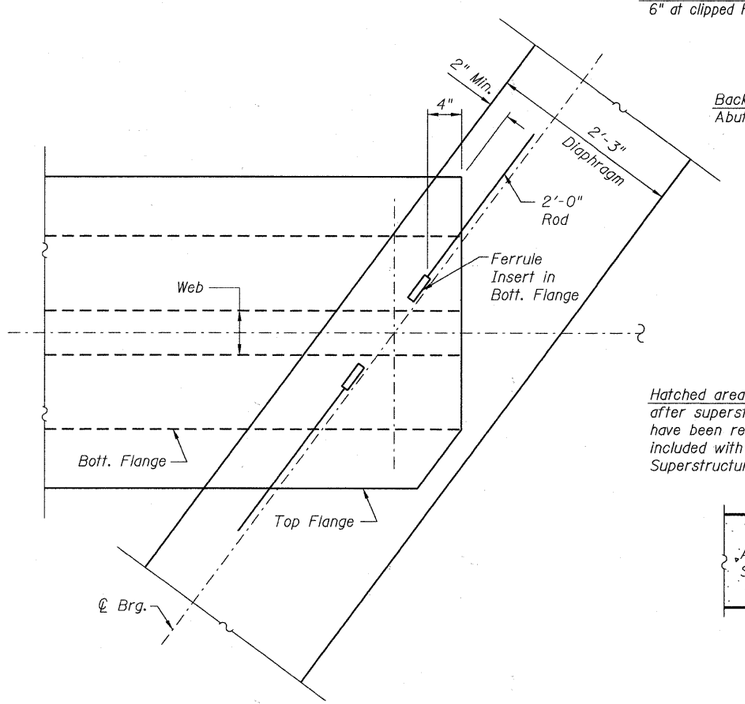


SECTION B-B AT WEST ABUTMENT

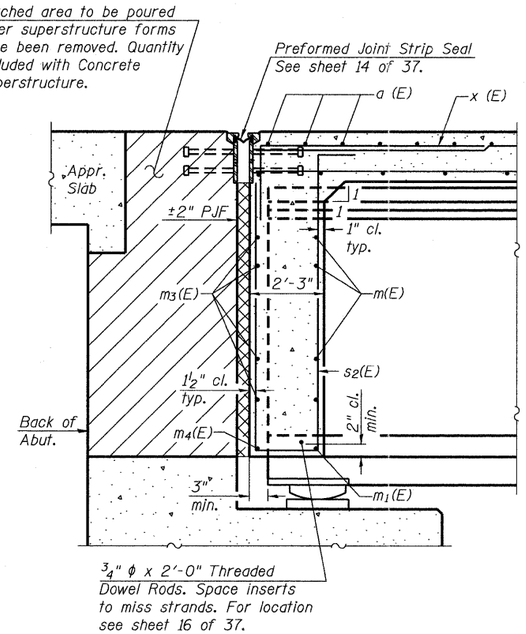
(at Rt. Ls)



DIAPHRAGM AT WEST ABUTMENT

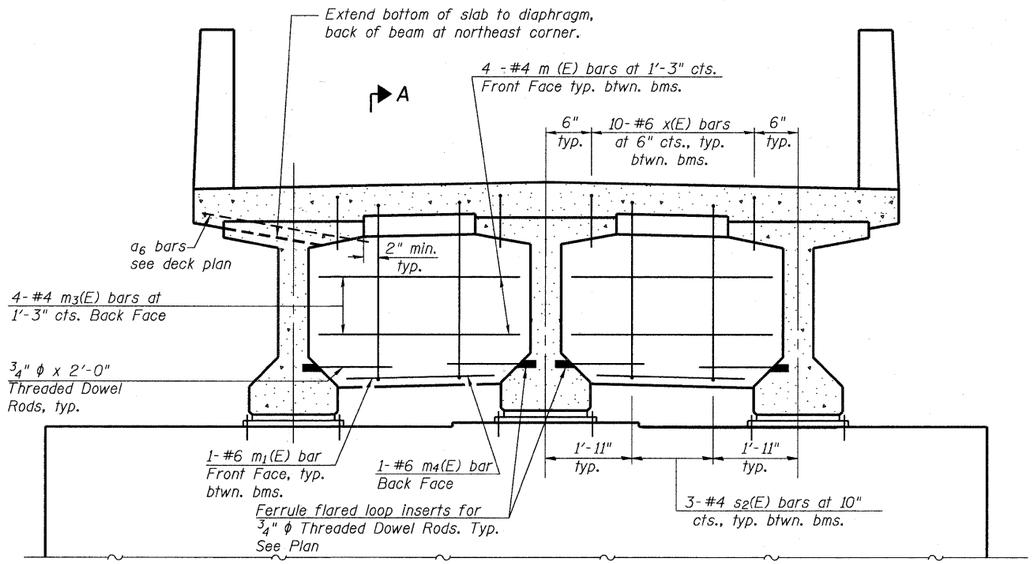


PLAN EAST DIAPHRAGM



SECTION A-A AT EAST ABUTMENT

(at Rt. Ls)



DIAPHRAGM AT EAST ABUTMENT

Notes:

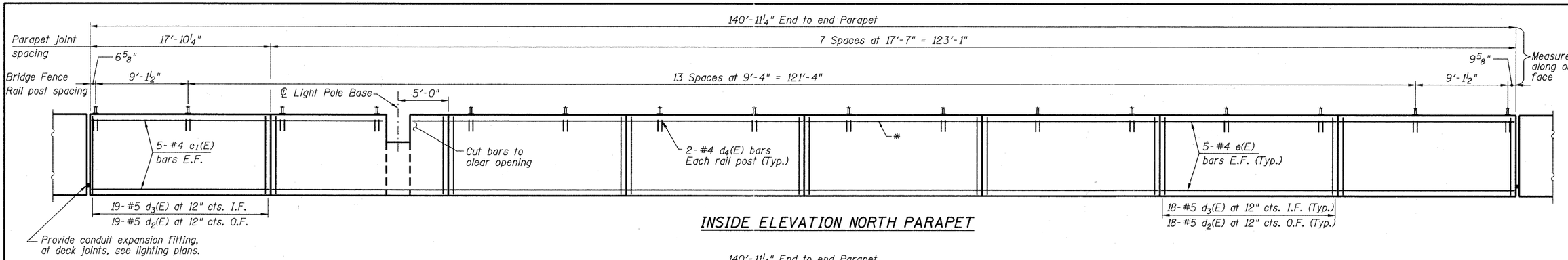
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 37.

Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 37.

The x(E), x_1(E), x_2(E) and s_2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

FILE NAME = w:\756-0824_lombard - gwt bridges phase 1\cadd sheets\structural\UPRR\022122-087-Diaphragm Details.dgn

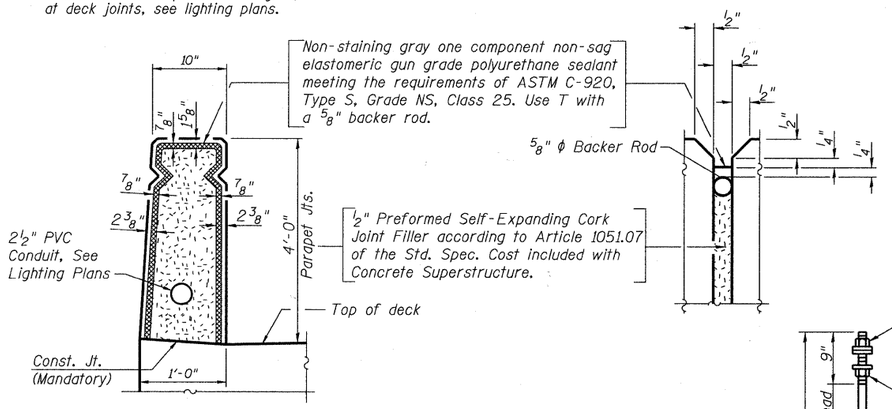
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	DIAPHRAGM DETAILS STRUCTURE NO. 022-3122	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED JJI	REVISED -				06-00151-00-BR	DuPAGE	201	87
	PLOT SCALE =	DRAWN GM	REVISED -					CONTRACT NO. 63568		
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		SHEET NO. 7 OF 37 SHEETS			ILLINOIS FED. AID PROJECT		



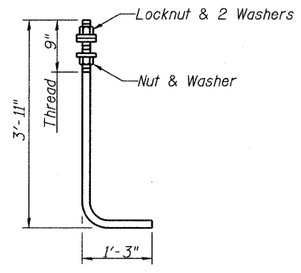
INSIDE ELEVATION NORTH PARAPET

OUTSIDE ELEVATION SOUTH PARAPET

* Locate top row of longitudinal parapet reinforcement clear of rail post anchors, maintain minimum reinforcement clearance.

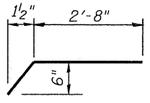


PARAPET JOINT DETAILS

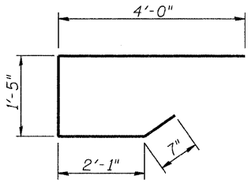


ANCHOR ROD DETAIL

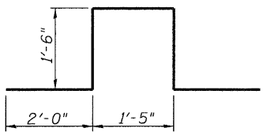
Diameter as specified for light poles.
(ASTM F 1554 Grade 105)
Galvanize after fabrication according to AASHTO M232.
Cost of anchor rods included
Concrete Superstructure



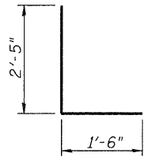
BAR d(E)



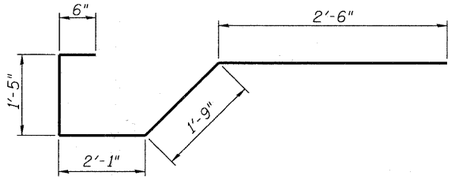
BAR x2(E)



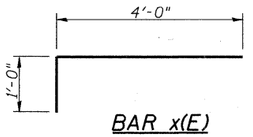
BAR d6(E)



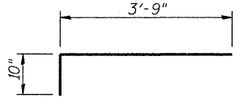
BAR d5(E)



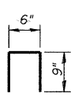
BAR x1(E)



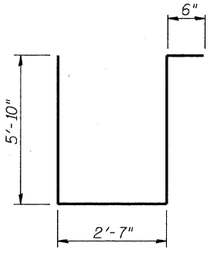
BAR x(E)



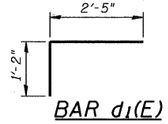
BAR d3(E)



BAR d4(E)



BAR s2(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	375	#5	15'-9"	
a3(E)	6	#5	5'-2"	
a4(E)	2	#5	12'-8"	
a5(E)	4	#5	19'-7"	
a6(E)	6	#5	3'-10"	
b(E)	90	#5	30'-10"	
b1(E)	96	#5	26'-3"	
d(E)	284	#5	3'-2"	
d1(E)	284	#6	3'-7"	
d2(E)	290	#5	3'-9"	
d3(E)	290	#5	4'-7"	
d4(E)	64	#4	2'-0"	
d5(E)	6	#6	3'-11"	
d6(E)	12	#6	8'-5"	
e(E)	140	#4	17'-4"	
e1(E)	20	#4	17'-7"	
m(E)	8	#4	5'-11"	
m1(E)	2	#6	4'-2"	
m3(E)	4	#4	12'-8"	
m4(E)	1	#6	12'-8"	
s2(E)	6	#4	8'-11"	
x(E)	12	#6	5'-0"	
x1(E)	10	#6	8'-3"	
x2(E)	12	#6	8'-1"	
Reinforcement Bars, Epoxy Coated		Pound	19,460	
Anti-Graffiti Protection System		Sq. Ft.	2,468	
Concrete Superstructure		Cu. Yd.	73.2	
Concrete Superstructure, Special		Cu. Yd.	37.9	
Form Liner Textured Surface, Special		Sq. Ft.	1,904	
Protective Coat		Sq. Yd.	226	

I.F.= Inside Face
O.F.= Outside Face
E.F.= Each Face

FILE NAME = w:\756-004_lombard - gst bridges phase ii\cadd sheets\structural\UPRR\022322-008-SupStruc Details.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

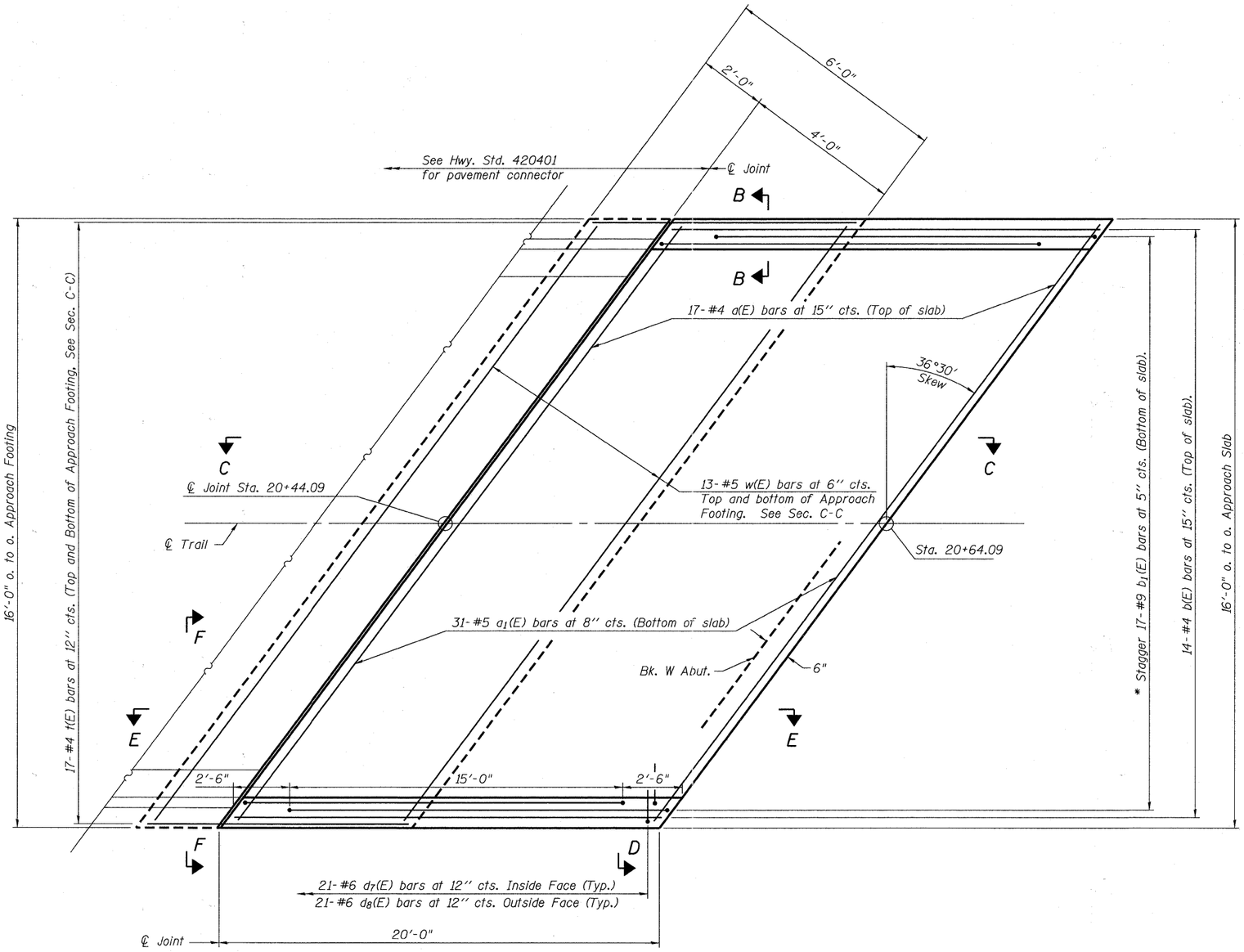
USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 022-3122
SHEET NO. 8 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	88
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

Notes:
See sheet 11 of 37 for Sections B-B, C-C, D-D, E-E and F-F.
a(E) and a_1(E) bar spacings measured along ℄ Rdwy.



WEST APPROACH PLAN

* Tilt #9 b_1(E) bars as required to maintain clearance.

(Sheet 1 of 3)

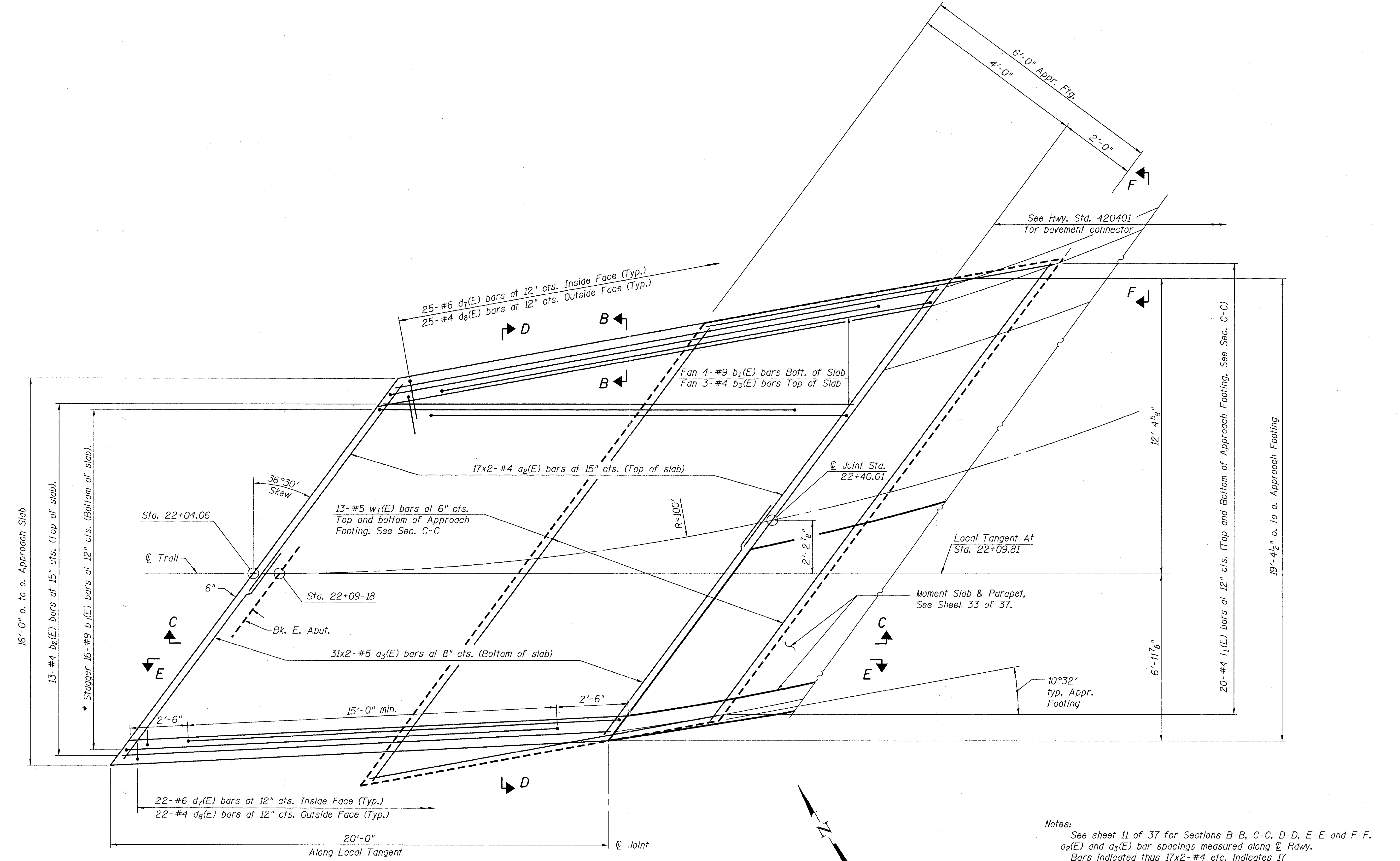
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -
		CHECKED JJI	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

WEST BRIDGE APPROACH SLAB
STRUCTURE NO. 022-3122
SHEET NO. 9 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	89
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

FILE NAME = w:\756-0004_lombard - gwt bridges phase 1\cadd sheets\structural\UPRR\022312-009-WEST BRIDGE APPROACH SLAB.dgn



Notes:
See sheet 11 of 37 for Sections B-B, C-C, D-D, E-E and F-F.
a_2(E) and a_3(E) bar spacings measured along ℄ Rdwy.
Bars indicated thus 17x2-#4 etc. indicates 17 lines of bars with 2 length per line.

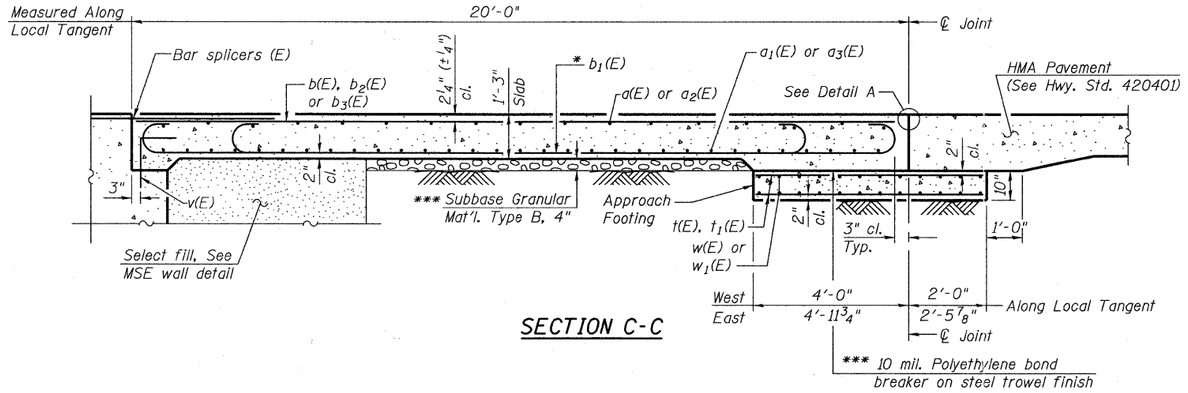
EAST APPROACH PLAN

* Tilt #9 b_1(E) bars as required to maintain clearance.

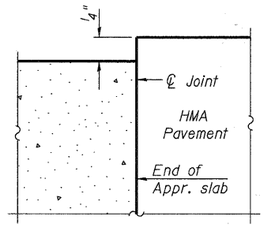
(Sheet 2 of 3)

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	EAST BRIDGE APPROACH SLAB STRUCTURE NO. 022-3122	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED JJI	REVISED -				06-00151-00-BR	DuPAGE	201	90
	PLOT SCALE =	DRAWN GM	REVISED -				CONTRACT NO. 63568			
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		SHEET NO. 10 OF 37 SHEETS		ILLINOIS FED. AID PROJECT			

FILE NAME = w:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\0223122-010-EAST BRIDGE APPROACH SLAB.dgn



SECTION C-C

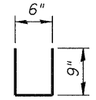


FLEXIBLE PAVEMENT

DETAIL A

Notes:

Approach slab concrete shall be paid for as Concrete Superstructure.
Parapet concrete to be paid for as Concrete Superstructure, Special.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheets 20 and 22 of 37.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 24 of 37.
Cost of excavation for approach footing included with Concrete Structures.
For additional parapet details, see sheet 14 of 37.
The top surface of the slab between Parapets shall be finished according to Article 423.06 of the Standard Specifications, except the surface shall be divided by grooves.
Application of Protective Coat shall be limited to the top surface of the slab between parapets.
See Architectural Treatment sheet for limits of Concert Superstructure, Special and Form Liner Textured Surface, Special.

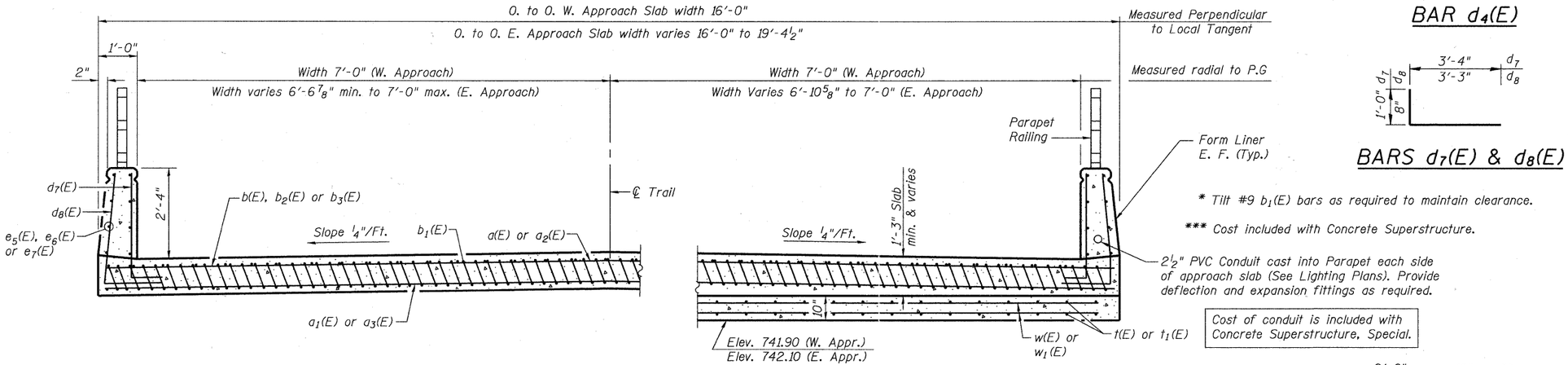


BAR $d_4(E)$

BARS $d_7(E)$ & $d_8(E)$

WEST APPROACH
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	17	#4	19'-7"	
$a_1(E)$	31	#5	19'-7"	
b(E)	14	#4	19'-8"	
$b_1(E)$	17	#9	20'-0"	
$d_4(E)$	12	#4	2'-0"	
$d_7(E)$	42	#6	4'-4"	
$d_8(E)$	42	#4	3'-11"	
$e_5(E)$	16	#4	19'-8"	
t(E)	34	#4	7'-2"	
w(E)	26	#5	19'-7"	
Concrete Superstructure			Cu. Yd.	15.8
Concrete Superstructure, Special			Cu. Yd.	3.2
Concrete Structures			Cu. Yd.	3.7
Reinforcement Bars, Epoxy Coated			Pound	3,500
Anti-Graffiti Protection System			Sq. Ft.	217
Form Liner Textured Surface, Special			Sq. Ft.	164
Protective Coat			Sq. Yd.	32

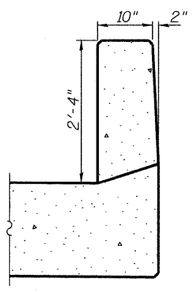


NEAR ABUTMENT

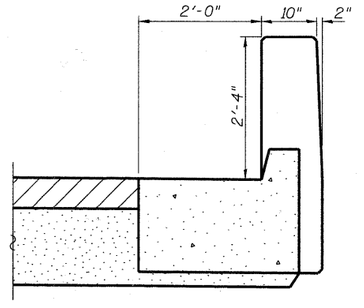
SECTION D-D

(See Plan for dimensions not shown)

AT APPROACH FOOTING

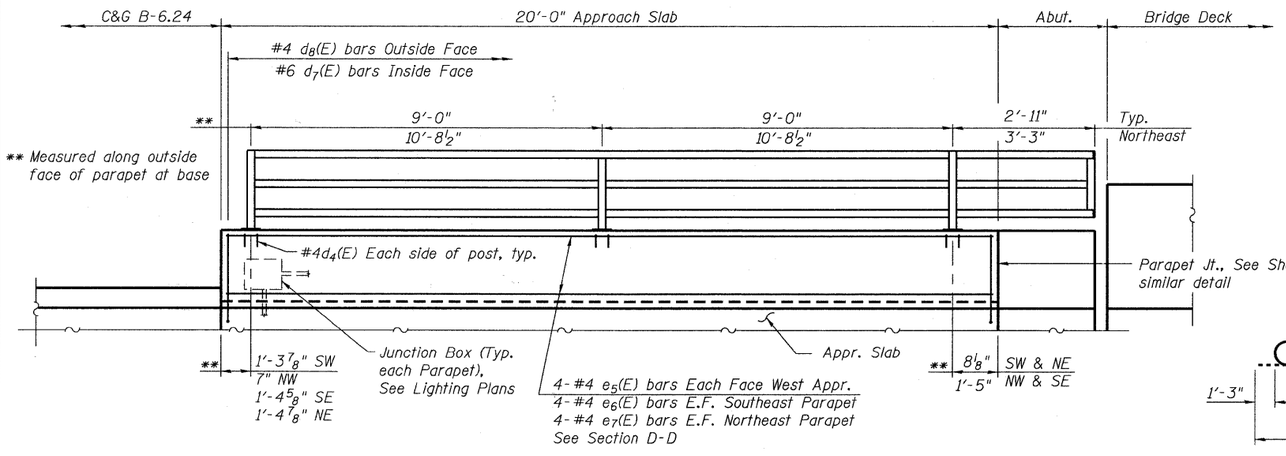


VIEW B-B

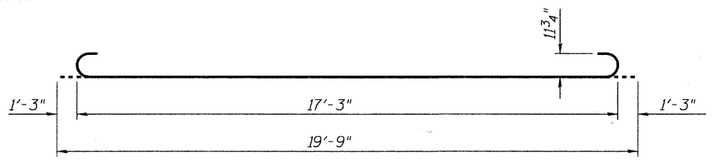


VIEW F-F

(See Rdwy. Plans for Pavement and C&G Details)



VIEW E-E



BAR $b_1(E)$

EAST APPROACH
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_2(E)$	34	#4	13'-2"	
$a_3(E)$	62	#5	13'-4"	
$b_1(E)$	20	#9	20'-0"	
$b_2(E)$	13	#4	20'-6"	
$b_3(E)$	3	#4	23'-2"	
$d_4(E)$	12	#4	2'-0"	
$d_7(E)$	47	#6	4'-4"	
$d_8(E)$	47	#4	3'-11"	
$e_6(E)$	8	#4	20'-6"	
$e_7(E)$	8	#4	23'-2"	
$t_1(E)$	40	#4	8'-5"	
$w_1(E)$	26	#5	23'-9"	
Concrete Superstructure			Cu. Yd.	17.7
Concrete Superstructure, Special			Cu. Yd.	3.6
Concrete Structures			Cu. Yd.	4.5
Reinforcement Bars, Epoxy Coated			Pound	3,480
Anti-Graffiti Protection System			Sq. Ft.	244
Form Liner Textured Surface, Special			Sq. Ft.	185
Protective Coat			Sq. Yd.	35

FILE NAME = w:\756-004-lombard - gw1 bridges phase 1\cadd sheets\structures\UPRR\022322-011-BRIDGE APPROACH SLAB DETAILS.dgn

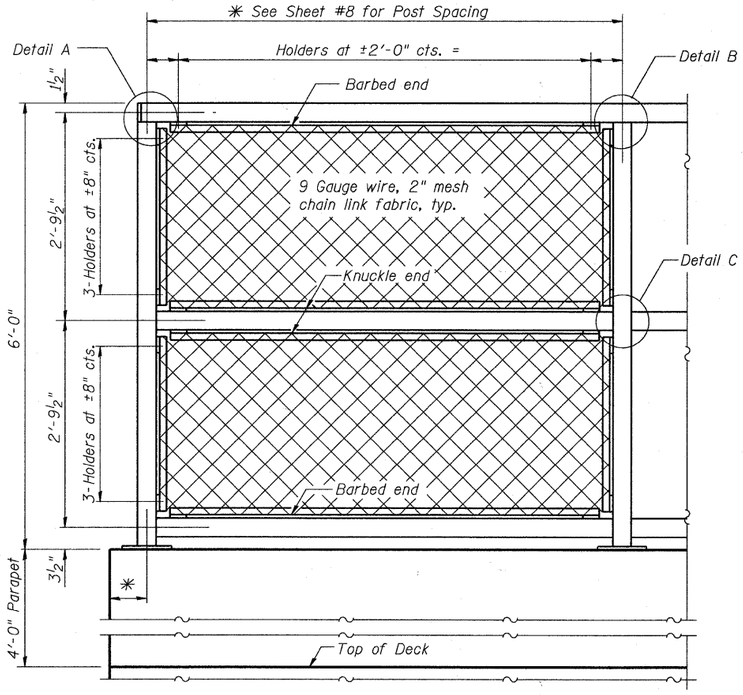
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

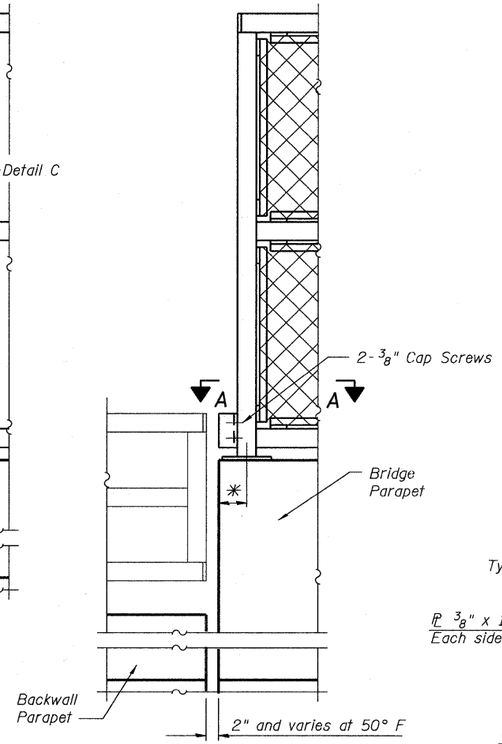
STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 022-3122
SHEET NO. 11 OF 37 SHEETS

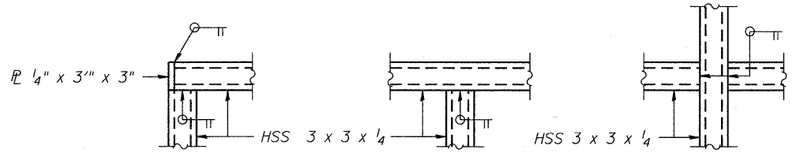
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	91
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



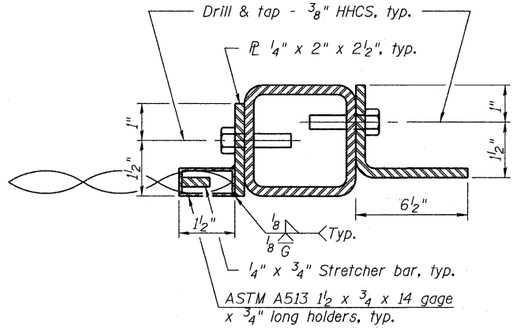
ELEVATION
(Inside Face)



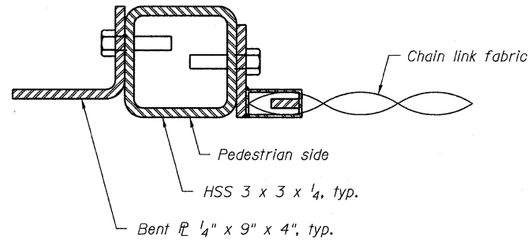
ELEVATION
(At Deck Joint)

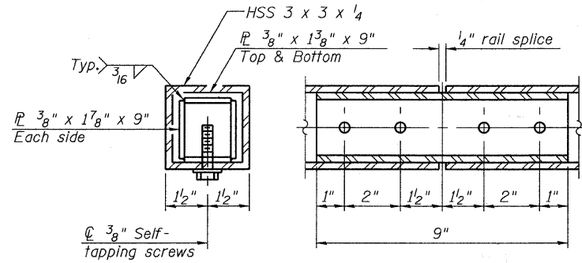


DETAIL A DETAIL B DETAIL C

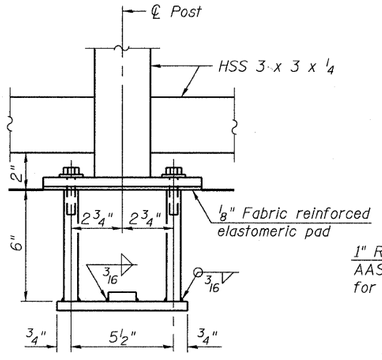


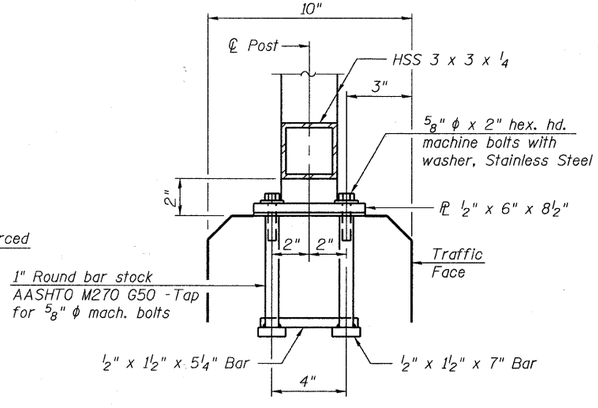
SECTION A-A





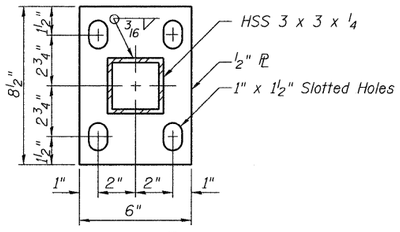
RAIL SPLICE





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications, except anchor rod assemblies shall be stainless steel. Embedment shall be according to the manufacturer's specifications.



BASE PL

Notes:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	283.9

FILE NAME = w:\756-024_lombard - gwt bridges phase 1\cadd sheets\structural\UPRR\022322-012-Bridge Fence Railing.dgn

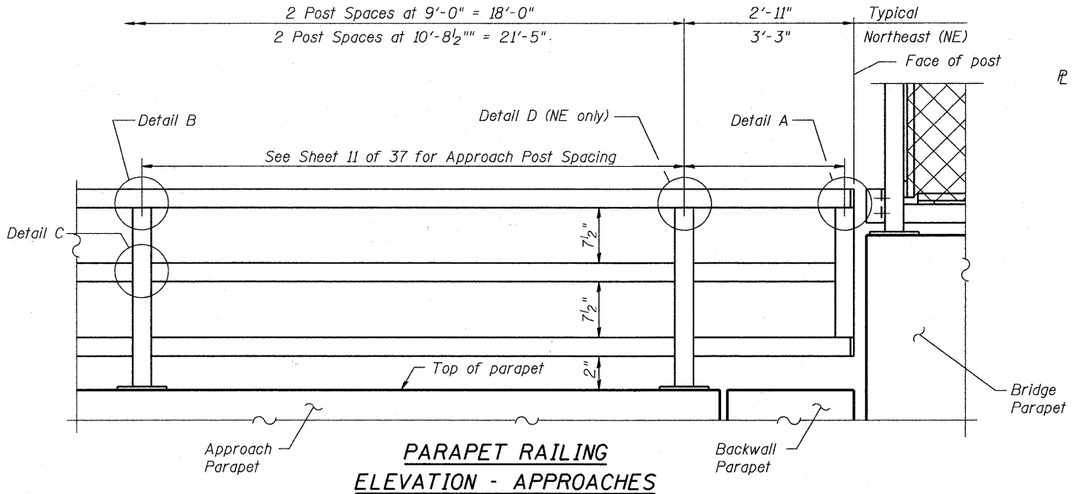
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

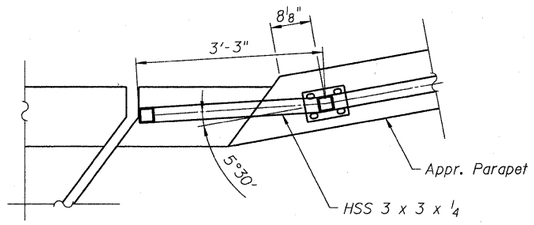
BRIDGE FENCE RAILING, PARAPET MOUNTED
STRUCTURE NO. 022-3122
SHEET NO. 12 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	92
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			



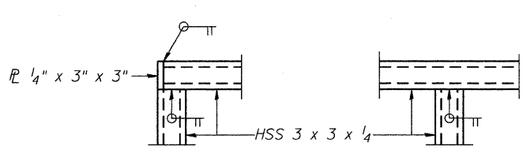
PARAPET RAILING ELEVATION - APPROACHES

(Outside Face of Three Element Rail)
Moment Slab Similar See Plan below



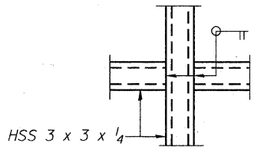
PLAN

(Northeast Corner Bridge)

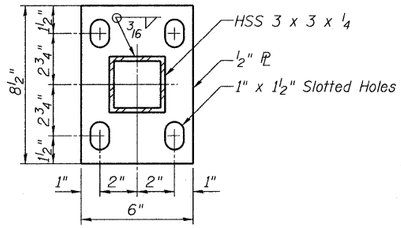


DETAIL A

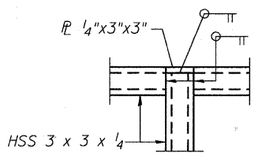
DETAIL B



DETAIL C



BASE ℄

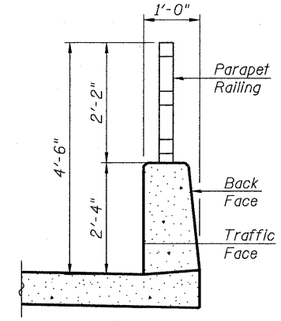


DETAIL D

(Northeast Corner)

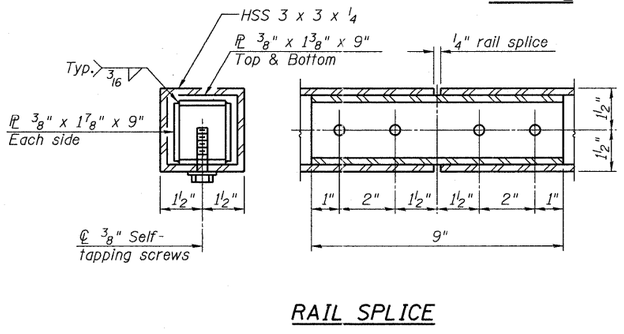
Notes:

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

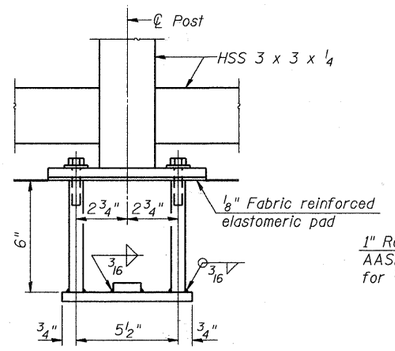


SECTION THRU APPROACH SLAB

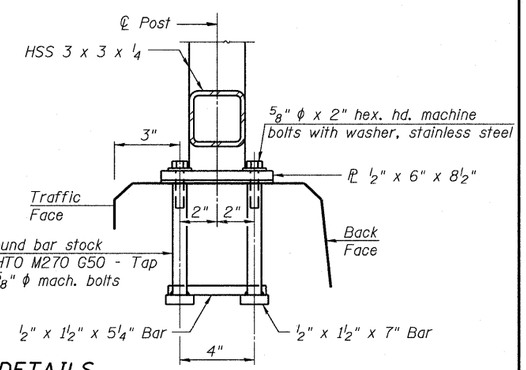
Moment Slab at SE MSE Wall Similar



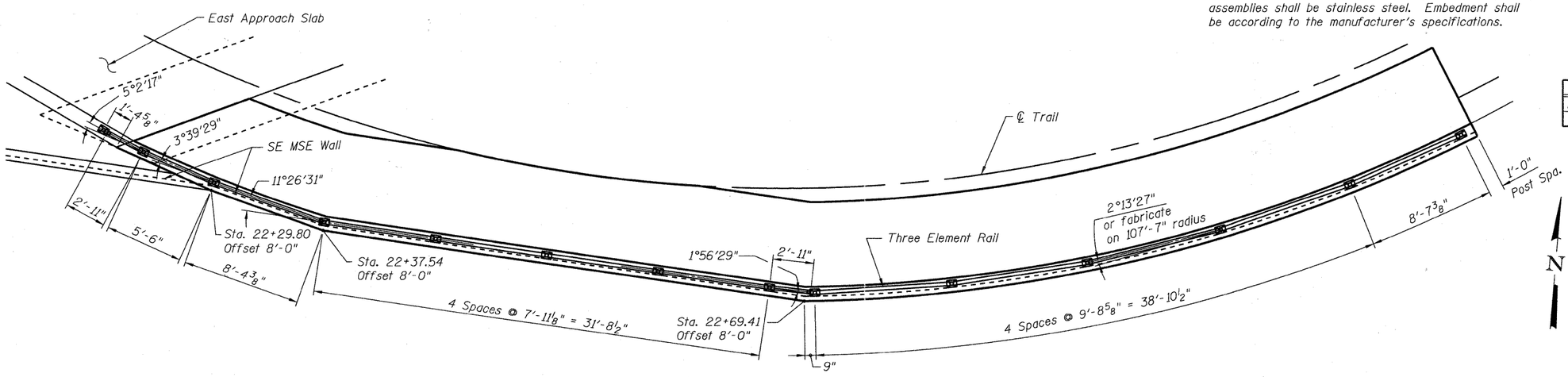
RAIL SPLICE



ANCHOR BOLT DETAILS



In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications, except anchor rod assemblies shall be stainless steel. Embedment shall be according to the manufacturer's specifications.



PLAN - SOUTHEAST MSE WALL MOMENT SLAB

(See sheet 33 of 37)

BILL OF MATERIAL *

Item	Unit	Quantity
Parapet Railing	Foot	189.3

* Approach slab quantity 88.0'.
Southeast MSE wall 101.3'.

R-29 7-1-10 (10'-0" Maximum Post Spacing)

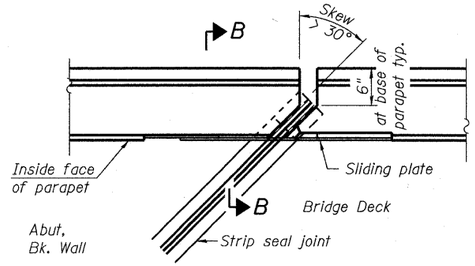
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -
		CHECKED JJI	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

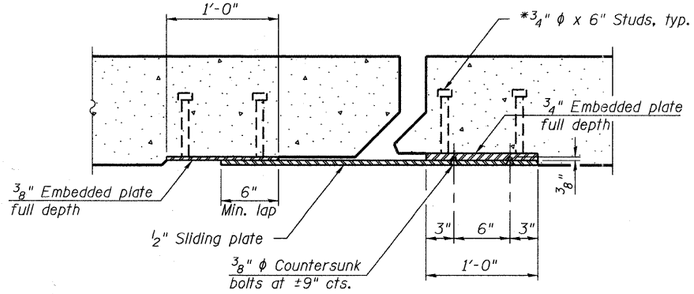
PARAPET RAILING
STRUCTURE NO. 022-3122
SHEET NO. 13 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	93
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

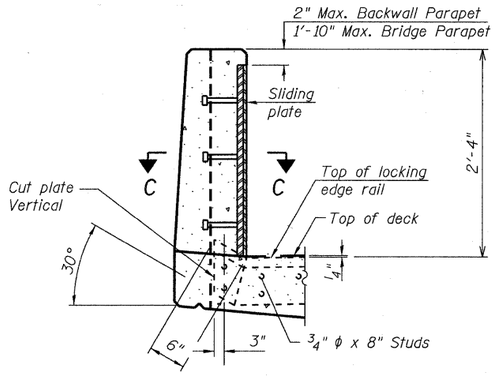
FILE NAME = w:\756-884_lombard - gwt bridges phase 1\cadd sheets\structural\UPRR\022322-013-PARAPET RAILING.dgn



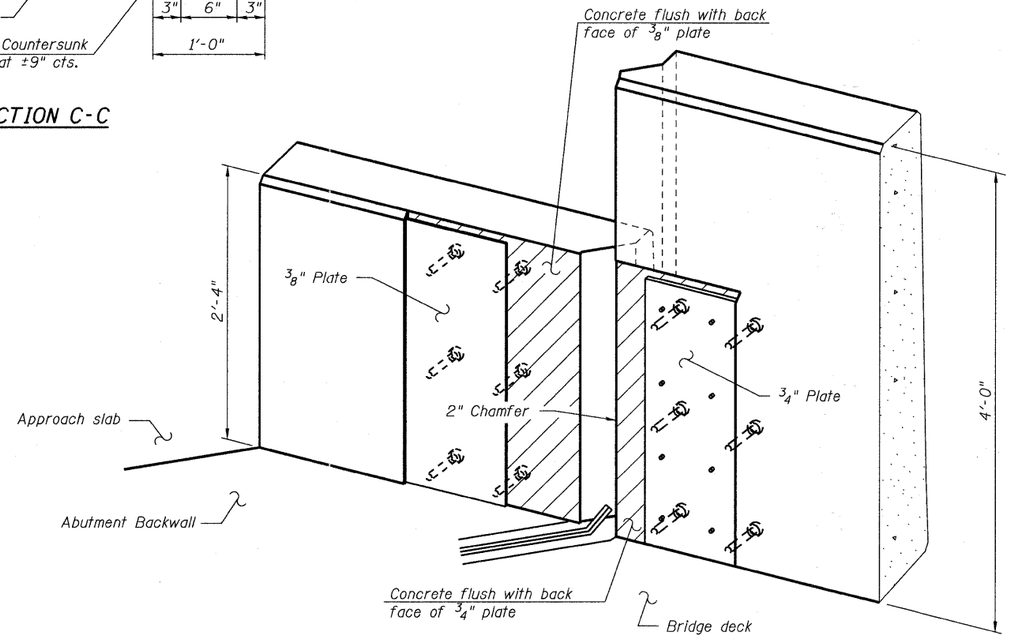
PLAN
(For skews > 30°)
Showing point block



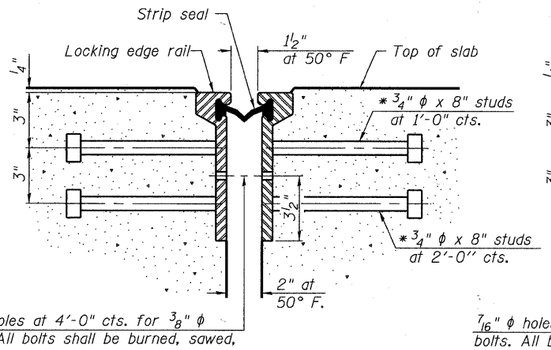
SECTION C-C



SECTION B-B

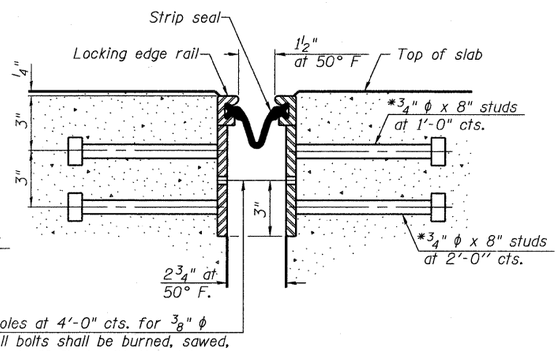


TRIMETRIC VIEW
(Showing back plates only)



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

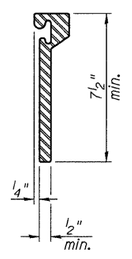
SECTION THRU
ROLLED RAIL JOINT



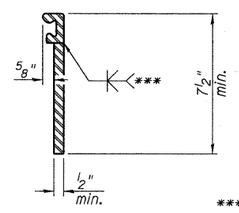
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT

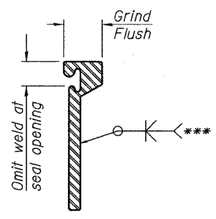
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED
EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Countersunk bolts shall be stainless steel or galvanized according to AASHTO M232

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	40.0

FILE NAME = w:\756-004_lombard - gwt bridges phase ii\tedd sheets\structural\UPRR\022322-014-PREFORMED JOINT STRIP SEAL.dgn

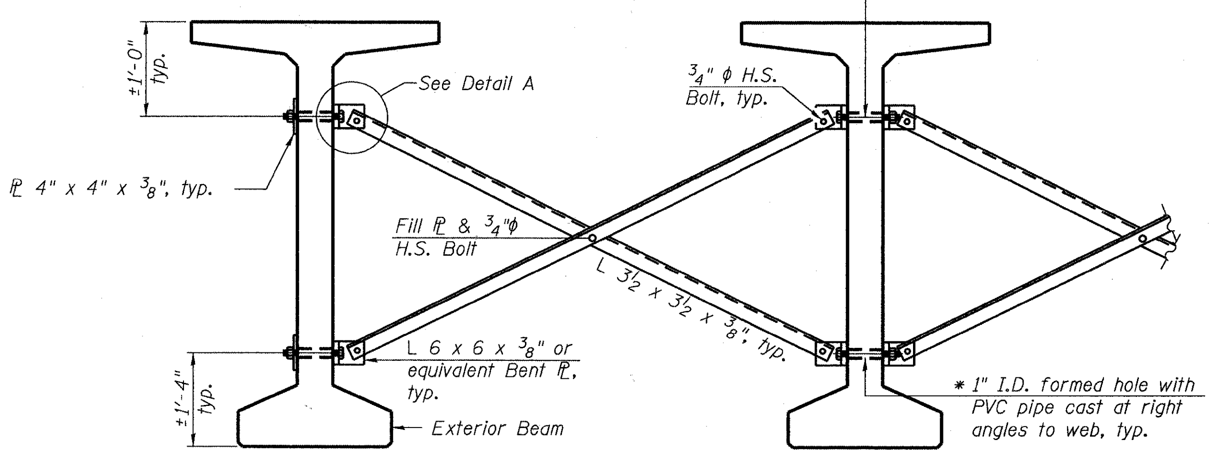
Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -
		CHECKED JJI	REVISED -
	PLOT SCALE =	DRAWN GM	REVISED -
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

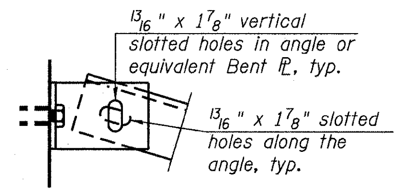
STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 022-3122
SHEET NO. 14 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	94
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

* Fabricator shall locate to miss strands within permissible tolerances.





DETAIL A

Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.

Two hardened washers are required for each set of oversized holes.

All holes shall be 15/16"ϕ unless otherwise noted.

5/16" x 3" x 3" plate washers are required over all slotted holes.

All bolts shall be galvanized according to AASHTO M232.

Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams.

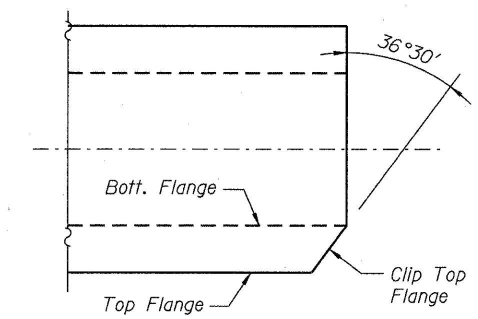
PERMANENT BRACING DETAILS FOR BULB-T BEAMS

EXTERIOR BEAM MOMENT TABLE		
		0.5 Sp. 1
I	(in⁴)	545894
I'	(in⁴)	939240
S_b	(in³)	14915
S_b'	(in³)	19075
S_t	(in³)	15421
S_t'	(in³)	41267
DC1	(k/')	1.38
M_{DC1}	('k)	3240
DC2	(k/')	0.40
M_{DC2}	('k)	730
DW	(k/')	0.18
M_{DW}	('k)	274
M℄	('k)	985

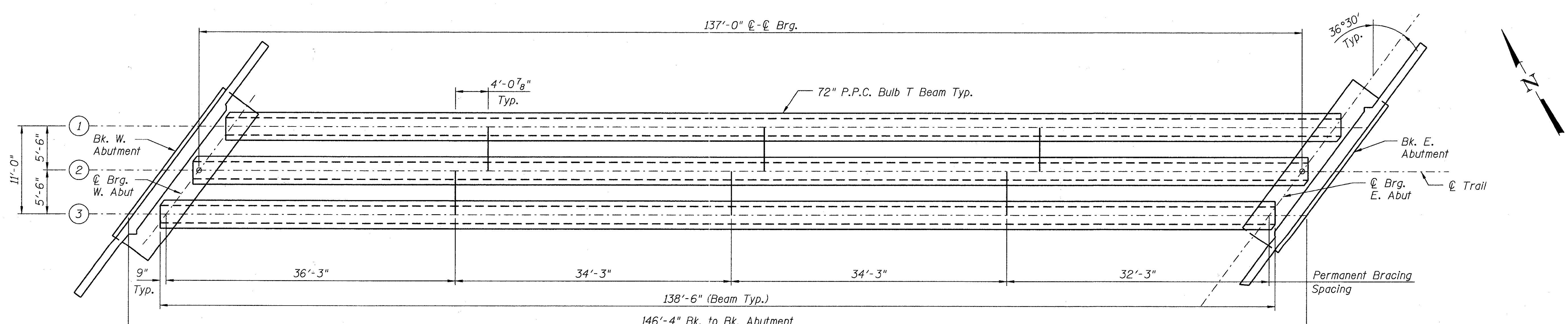
INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	94.6
R_{DC2}	(k)	27.4
R_{DW}	(k)	8.0
R ℄	(k)	36.1
R_{Total}	(k)	166.1

Diaphram weight not included in dead load.

I: Non-composite moment of inertia of beam section (in.⁴).
I': Composite moment of inertia of beam section (in.⁴).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
S_b': Composite section modulus for the bottom fiber of the prestressed beam (in.³).
S_t: Non-composite section modulus for the top fiber of the prestressed beam (in.³).
S_t': Composite section modulus for the top fiber of the prestressed beam (in.³).
DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
M℄: Un-factored live load moment (kip-ft.).



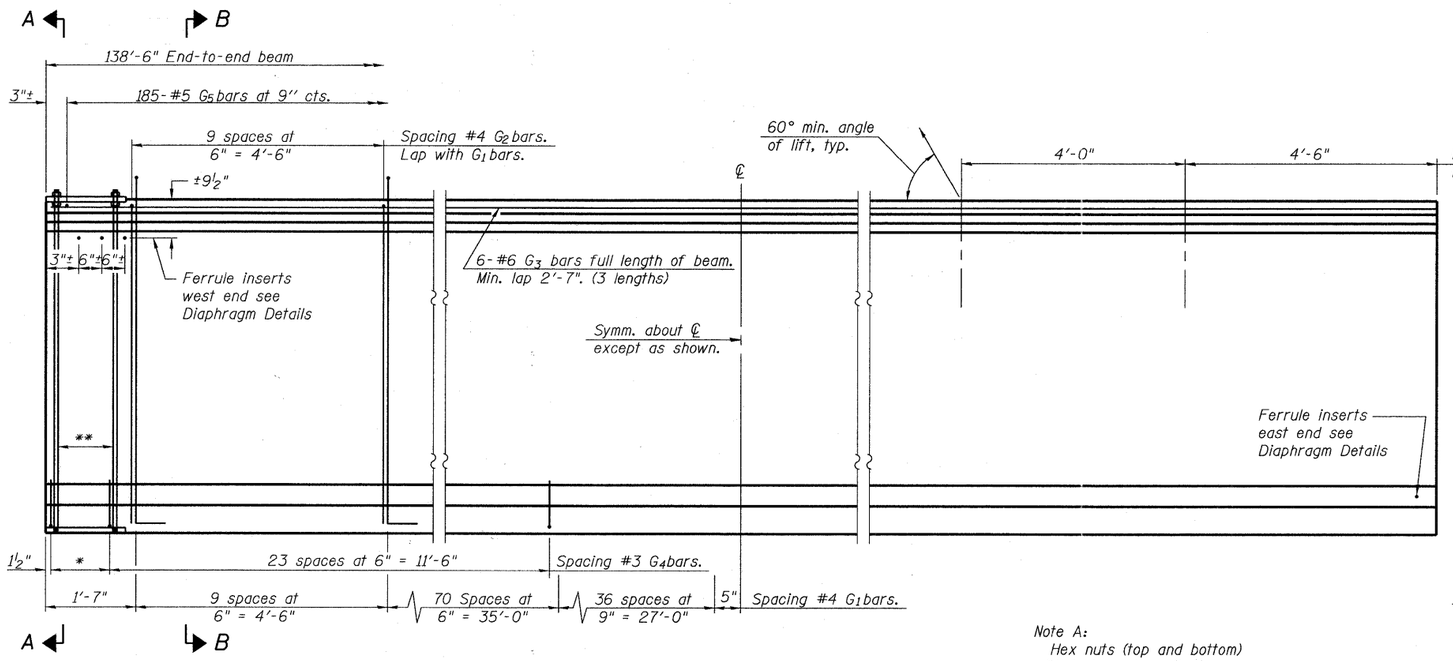
FLANGE DETAIL



PLAN

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	FRAMING PLAN STRUCTURE NO. 022-3122	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED JJI	REVISED -				06-00151-00-BR	DuPAGE	201	95
	PLOT SCALE =	DRAWN GM	REVISED -					CONTRACT NO. 63568		
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		SHEET NO. 15 OF 37 SHEETS		ILLINOIS FED. AID PROJECT			

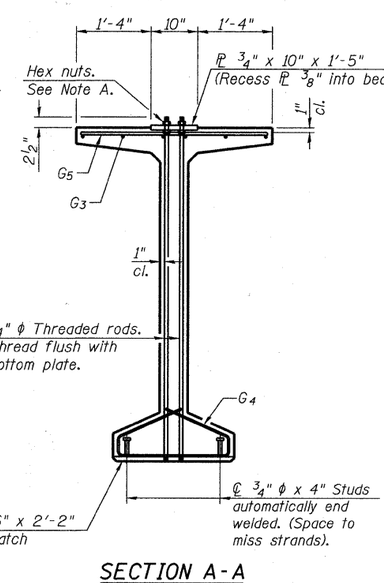
FILE NAME = w:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\0223122-015-Framing Plan.dgn



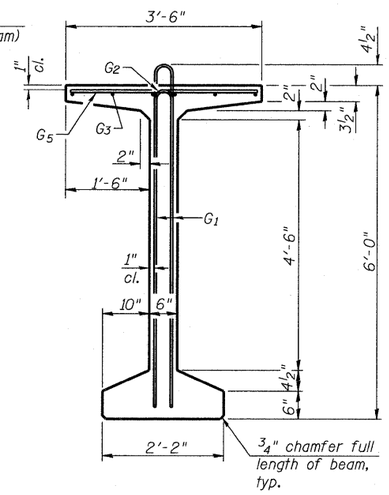
* 4 spaces at 3¼" = 1'-1".
** 5-¾" ϕ threaded dowel rods at 3¼" cts., each face.

ELEVATION OF BEAM
(Showing reinforcement & dimensions)

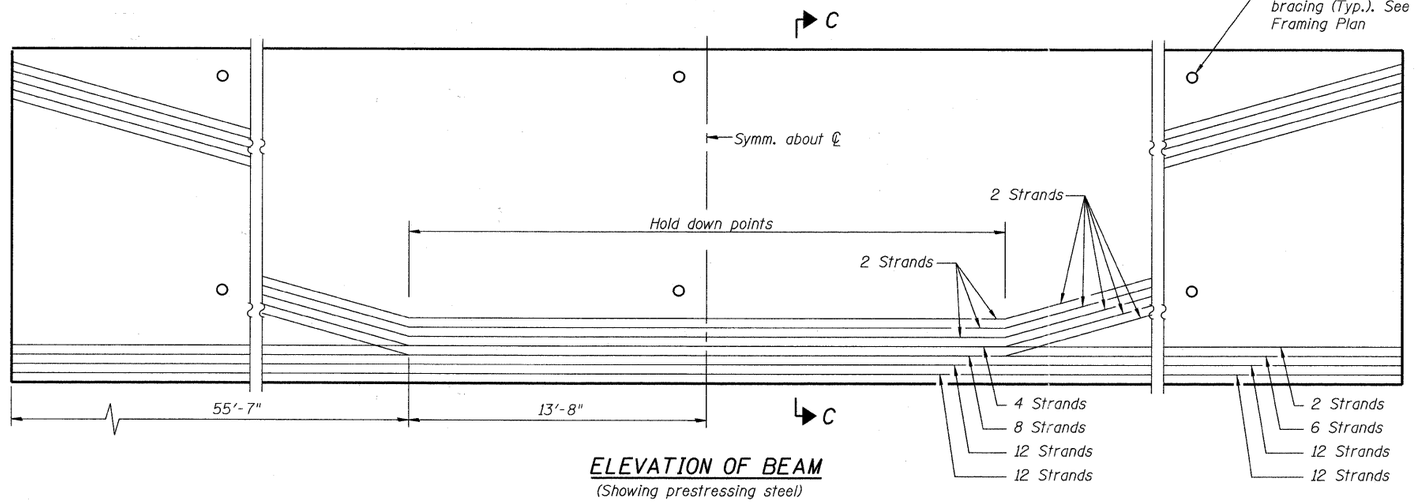
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



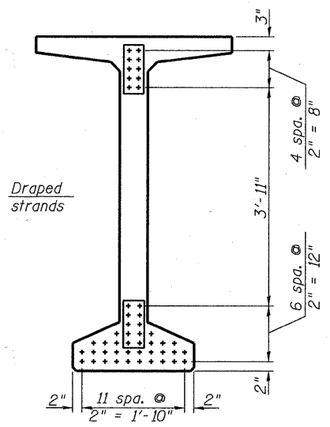
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

***BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	232	#4	13'-5"	⊓L
G_2	20	#4	11'-8"	⊓
G_3	18	#6	47'-11"	——
G_4	56	#3	4'-11"	⌓
G_5	185	#5	3'-4"	——

***For information only

Notes:
See sheet 17 of 37 for additional details and Bill of Material.
Required release strength, f'ci, shall be 6,000 psi.
Additional lifting loops and partial prestressing may be added for shipping and handling. Cost included in beam.

PBT-4-72 7-1-10

FILE NAME = w:\795-004.lombard - gwt bridges phase 1\roadd sheets\structure\UPRR\0223122-216-PCC BULB T BEAM DETAILS 1.dgn

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -	
	CHECKED JJI	REVISED -	
PLOT SCALE =	DRAWN GM	REVISED -	
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -	

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

72" PPC BULB T-BEAM
STRUCTURE NO. 022-3122
SHEET NO. 16 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	96
		CONTRACT NO. 63568		
	ILLINOIS	FED. AID PROJECT		

NOTES

Inserts for $\frac{3}{4}''$ ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}''$ and the nominal cross-sectional area shall be 0.153 sq. in.

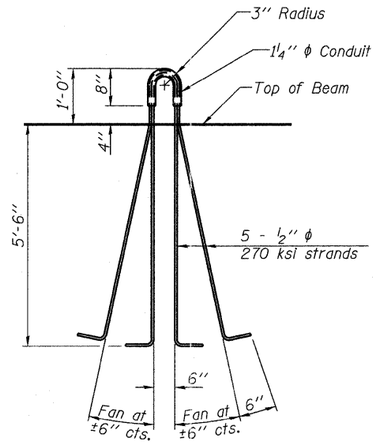
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

A minimum $2\frac{1}{2}''$ ϕ lifting pin shall be used to engage the lifting loops during handling.

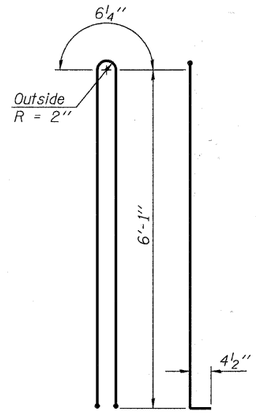
The top and bottom plates shall be AASHTO M270 Grade 50.

The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.

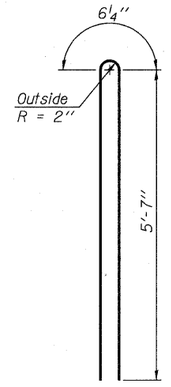
Threaded rods shall be ASTM F 1554 Grade 55.



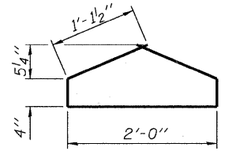
LIFTING LOOP DETAIL



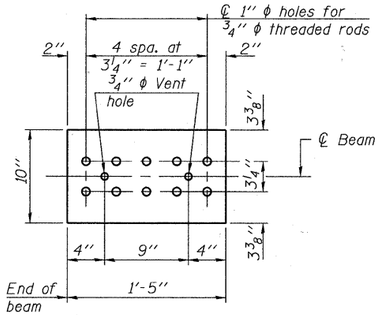
BAR G1



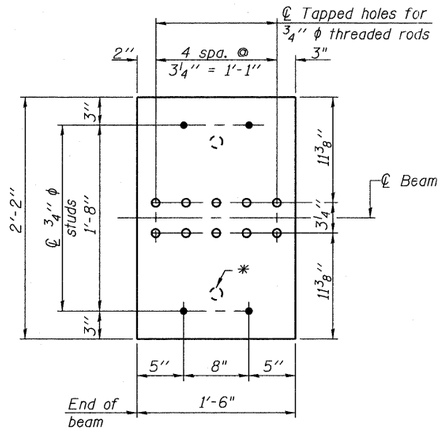
BAR G2



BAR G4



TOP PLATE



BOTTOM PLATE

* See bearing details for pintle hole locations when required.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 72"	Ft.	415.5

PBT-4-72D 7-1-10

Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

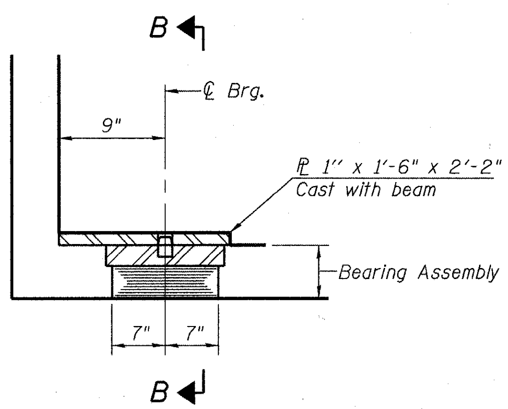
USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

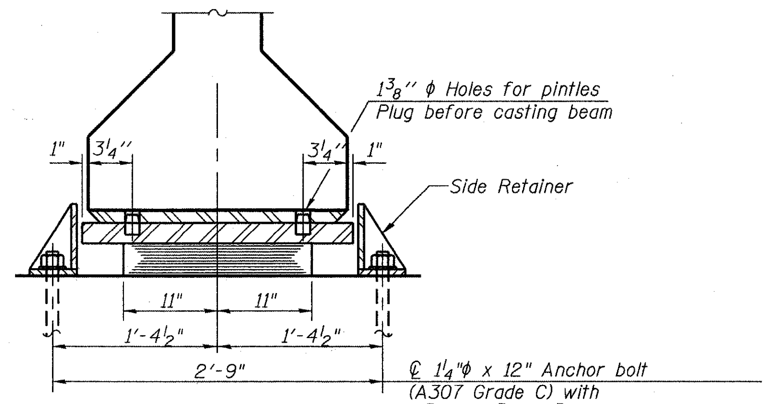
72" PPC BULB T-BEAM DETAILS
STRUCTURE NO. 022-3122
SHEET NO. 17 OF 37 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	97
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			

FILE NAME = s:\795-004_lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\022312Z-017-PCC BULB T BEAM DETAILS 11.dgn



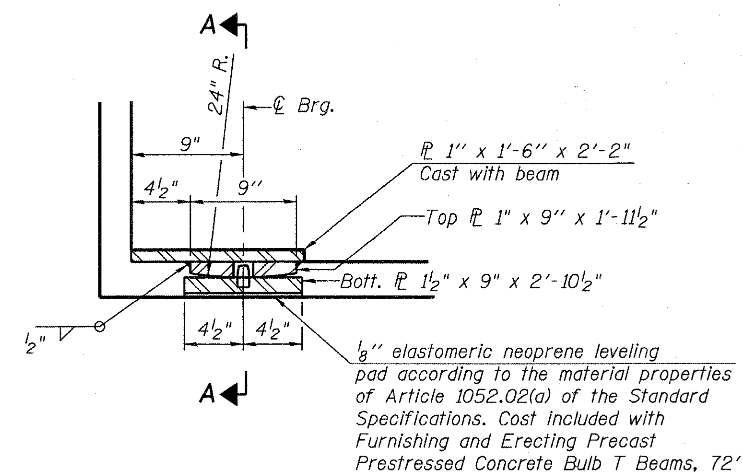
SECTION AT ABUT.



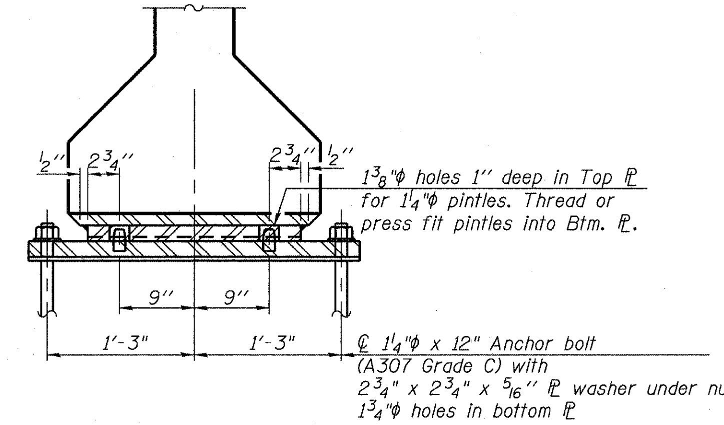
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.

West Abutment



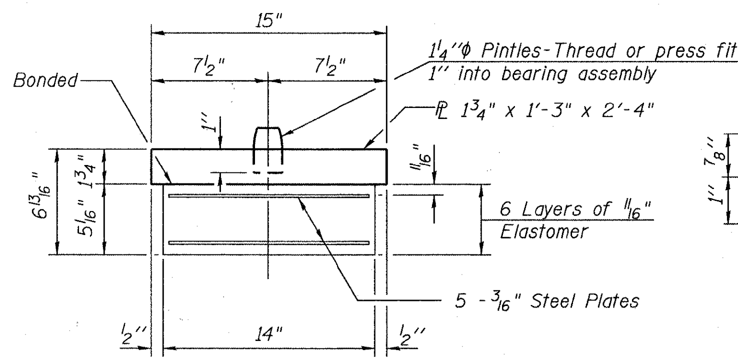
SECTION AT ABUT.



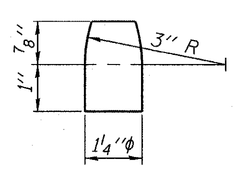
SECTION A-A

FIXED BEARING

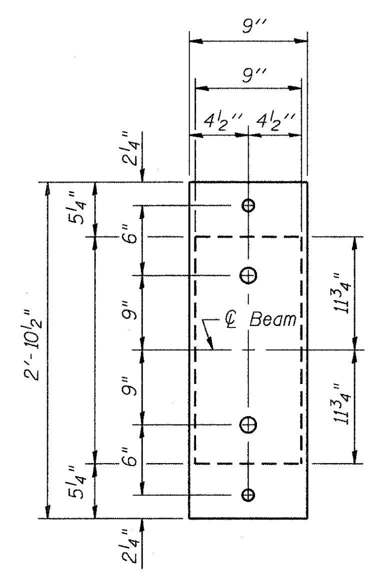
East Abutment



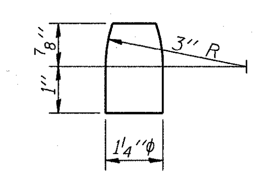
BEARING ASSEMBLY



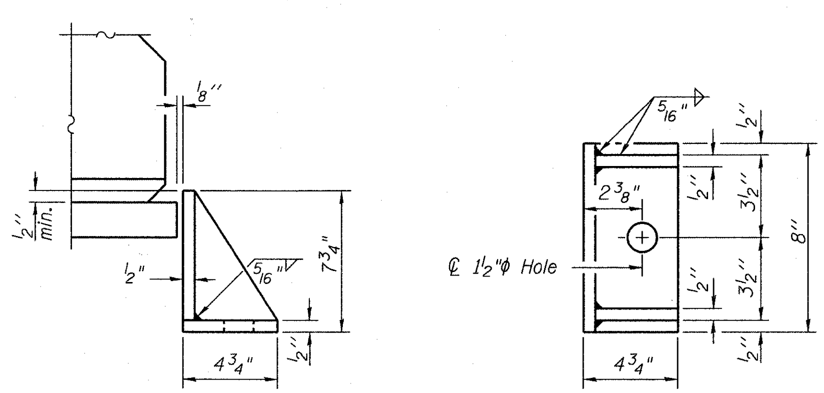
PINTLE



PLAN OF TOP & BOTTOM PLATES



PINTLE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers may be cast in place or installed in holes drilled after members are in place.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place and prior to pouring the deck.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Anchor Bolts shall be included in the cost of each bearing assembly.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

See sheet 17 of 37 for additional details of plate cast with beam.

All steel shall be hot-dip Galvanized in Accordance with AASHTO M111 or M232 as applicable. Except top ℄ of Elastometric Bearing which shall be Cold-Galvanized coated. Cost for these items included with each Bearing Assembly.

The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	3
Steel Bearings Assembly	Each	3

FILE NAME = w:\756-004.lombard - gwt bridges phase ii\cadd sheets\structural\UPRR\0223122-018-BEARINGS.dgn

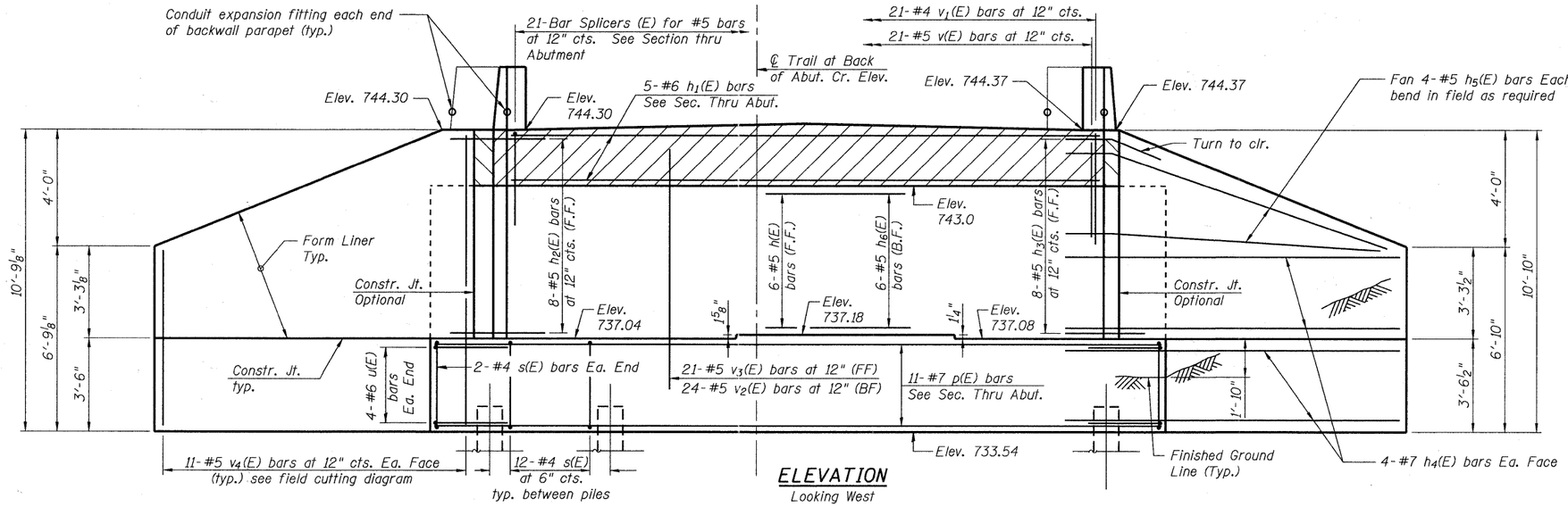
Bollinger, Lach & Associates, Inc.
ITASCA, ILLINOIS

USER NAME = gonzalo	DESIGNED SRT	REVISED -
	CHECKED JJI	REVISED -
PLOT SCALE =	DRAWN GM	REVISED -
PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -

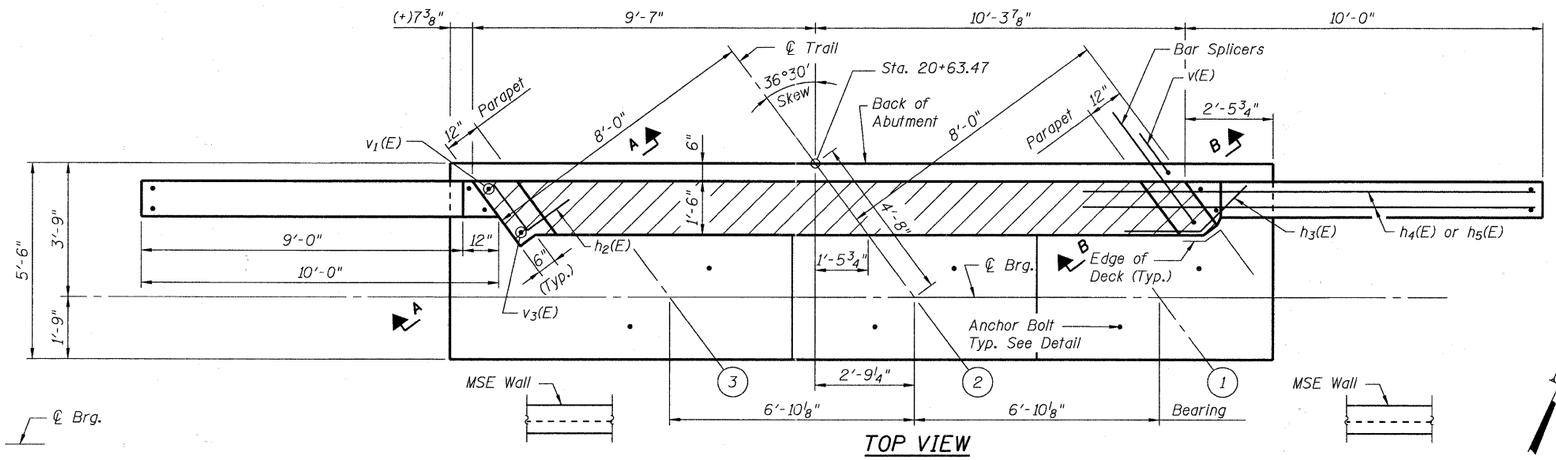
STATE OF ILLINOIS
GREAT WESTERN TRAIL
UNION PACIFIC RAILROAD

BEARINGS
STRUCTURE NO. 022-3122
SHEET NO. 18 OF 37 SHEETS

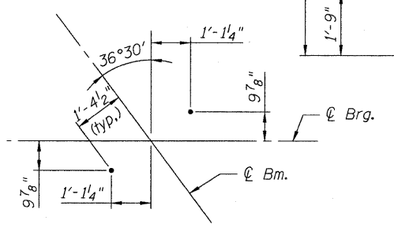
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	98
		CONTRACT NO. 63568		
		ILLINOIS FED. AID PROJECT		



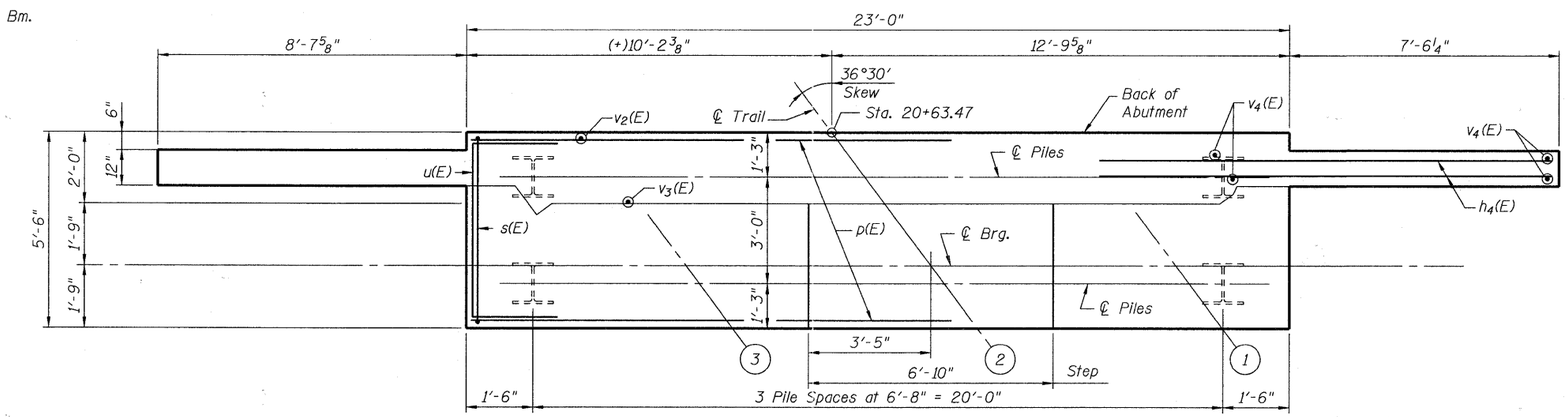
ELEVATION
Looking West



TOP VIEW



ANCHOR BOLT LOCATION



PLAN-PILE CAP

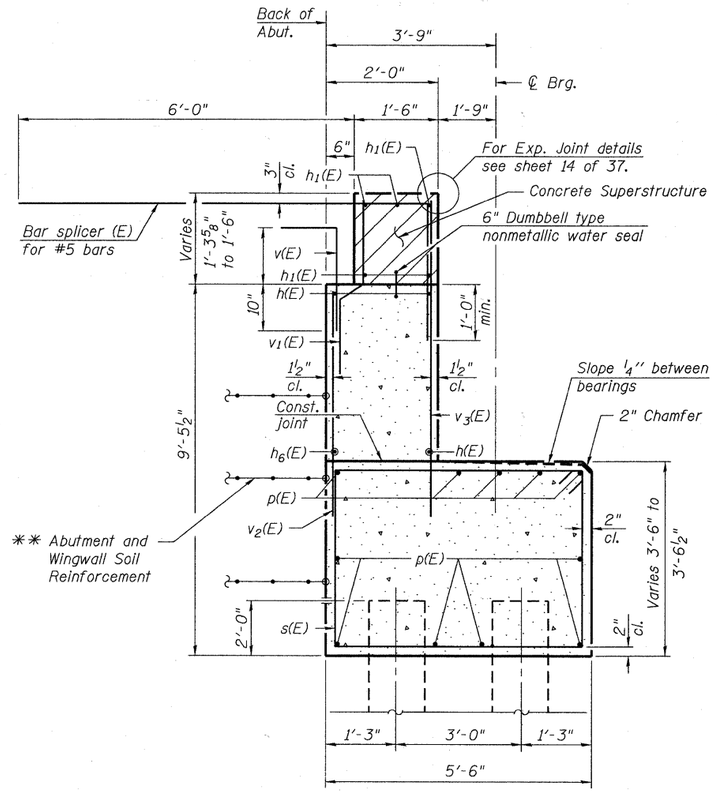
Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Contractor Shall coordinate abutment construction with construction of MSE retaining wall.
For MSE wall see sheet 26 of 37.

PILE DATA

Type: HP 12x63 with pile shoes
Nominal Required Bearing: 360 kips
Factored Resistance Available: 180 kips
Est. Length: 67 ft.
No. Production Piles: 7
No. Test Piles: 1

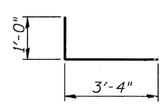
FILE NAME = w:\758-004_lombard - gwt bridges phase 1\cadd sheets\structural\UPRR_022122-019-WEST ABUTMENT.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	WEST ABUTMENT STRUCTURE NO. 022-3122	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED JJI	REVISED -				06-00151-00-BR	DuPAGE	201	99
	PLOT SCALE =	DRAWN GM	REVISED -						CONTRACT NO. 63568	
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		SHEET NO. 19 OF 37 SHEETS			ILLINOIS	FED. AID PROJECT	

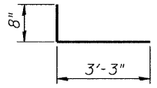


SEC. THRU ABUT.

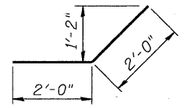
** The M.S.E. wall supplier shall design the abutment and wingwall soil reinforcement to resist a horizontal force of 2 kips/ft. Contractor shall coordinate abutment construction with construction of MSE retaining wall.



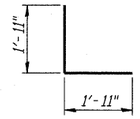
BAR d_7(E)



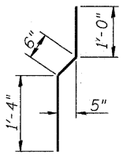
BAR d_8(E)



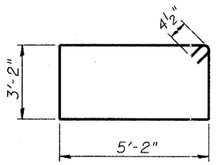
BAR h_3(E)



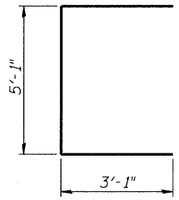
BAR h_2(E)



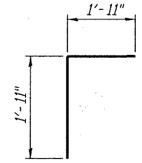
BAR v_1(E)



BAR s(E)



BAR u(E)



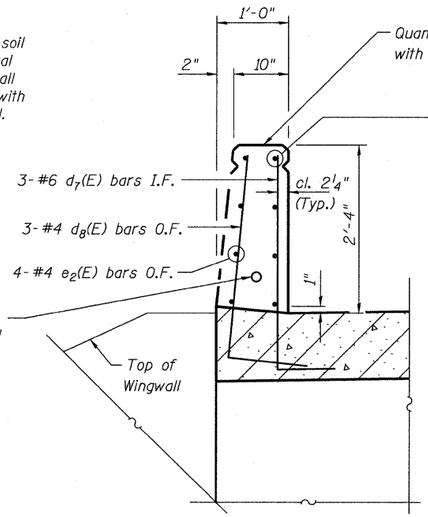
BAR v(E)

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d_7(E)	6	#6	4'-4"	
d_8(E)	6	#4	3'-11"	
e_2(E)	4	#4	2'-2"	
e_3(E)	8	#4	1'-7"	
e_4(E)	4	#4	1'-3"	
h(E)	6	#5	19'-0"	
h_1(E)	5	#6	19'-3"	
h_2(E)	8	#5	3'-10"	
h_3(E)	8	#5	4'-0"	
h_4(E)	32	#7	12'-9"	
h_5(E)	16	#5	12'-6"	
h_6(E)	6	#5	22'-8"	
p(E)	11	#7	22'-8"	
s(E)	40	#4	17-5"	
u(E)	8	#6	11'-3"	
v(E)	21	#5	3'-10"	
v_1(E)	21	#4	2'-10"	
v_2(E)	24	#5	7'-11"	
v_3(E)	21	#5	9'-5"	
v_4(E)	22	#5	17'-0"	

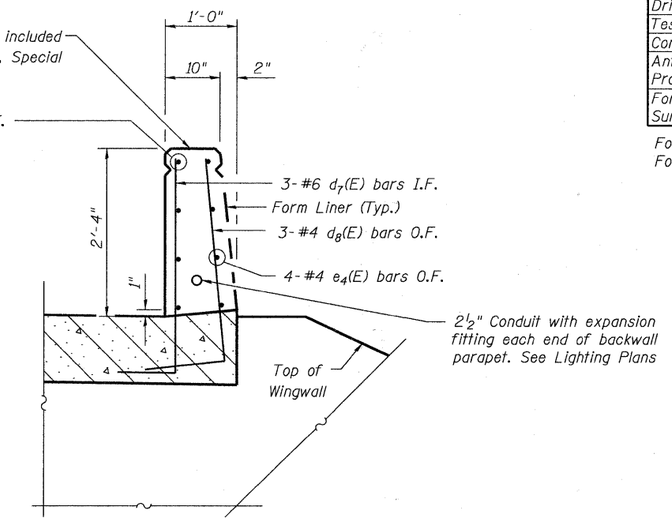
Concrete Structures	Cu. Yd.	30.2
Concrete Superstructure	Cu. Yd.	1.6
Concrete Superstructure, Special	Cu. Yd.	0.3
Reinforcement Bars, Epoxy Coated	Pound	3,620
Furnishing Steel Piles, HP 12x63	Foot	469
Pile Shoes	Each	8
Bar Splicers	Each	21
Driving Piles	Foot	469
Test Pile, HP 12x63	Each	1
Concrete Sealer	Sq. Ft.	290
Anti-Graffiti Protection System	Sq. Ft.	210
Form Liner Textured Surface, Special	Sq. Ft.	123

For details of Bar Splicers, see sheet 25 of 37.
For details of piles, see sheet 24 of 37.



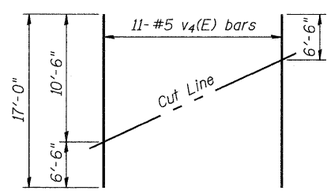
SECTION A-A

(Southwest backwall parapet)



SECTION B-B

(Northwest backwall parapet)



FIELD CUTTING DIAGRAM

Order v_4(E) bars full length. Cut as shown and use remainder of bars in opposite face.

FILE NAME = w:\756-004_lombard - gst bridges phase ii\cadd sheets\structural\UPRR\022122-020-WEST ABUTMENT DETAILS.dgn

Bollinger, Lach & Associates, Inc. ITASCA, ILLINOIS	USER NAME = gonzalo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	WEST ABUTMENT DETAILS STRUCTURE NO. 022-3122
		CHECKED JJI	REVISED -		
	PLOT SCALE =	DRAWN GM	REVISED -		SHEET NO. 20 OF 37 SHEETS
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00151-00-BR	DuPAGE	201	100
		CONTRACT NO. 63568		
	ILLINOIS FED. AID PROJECT			